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ABSTRACT

This report, based on the results of the fifth biennial survey of humanities doctorate recipients, describes the demographic and employment characteristics of humanities Ph.D.s who received their degrees between January 1942 and June 1984 and were residing in the United States in February 1985. The number of humanities Ph.D.s in 1985 was estimated to be 90,600, 6.3 percent above the 85,200 estimated for 1983. Of these, 83,300 were in the labor force, 6.9 percent above the 77,900 estimated for 1983. The survey variables include the field of the doctorate, year of Ph.D., gender, racial/ethnic group, and citizenship. The report covers: (1) doctoral population by field; (2) employment; (3) median annual salary; and (4) academic employment. The appendices include a survey of the questionnaires; sampling frame, sampling error, and response rates; weighting procedure; and fields of employment. Among the findings were that of those who achieved the rank of full professor, the percentage for men was approximately twice that for women (45.3 percent versus 23.8 percent respectively). (NL)

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1985 PROFILE

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HUMANITIES DOCTORATES IN THE UNITED STATES

1985 PROFILE

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Office of Scientific and Engineering Personnel
NATIONAL RESEARCH COUNCIL

NATIONAL ACADEMY PRESS
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1986

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This report has been reviewed by a group other than the authors according to procedures approved by a Report Review Committee consisting of members of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

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The Survey of Doctorate Recipients (SDR) project, under the administrative supervision of Betty D. Maxfield, received assistance from OSEP's Data Processing Section: Eileen Milner and Mary Wanyoike supervised the coding of the returned questionnaires, and George Boyce updated and generated the data files for the survey project. Prudence Brown, research associate with the SDR Office, was responsible for all summary statistics and graphics in the report.

Jeffrey Thomas served as the responsible staff officer at the National Endowment for the Humanities and assisted the program staff in developing the draft outline for the report. Along with members of the Humanities Advisory Panel, he provided helpful advice about revisions to the draft report.

Prior to publication, the report was reviewed by James H. Mulligan, Jr., chairman of the OSEP Advisory Committee; Cora Marrett, a member of that Advisory Committee; John O'Connor and O. B. Hardison, members of the Humanities Advisory Panel, Alan Fechter, OSEP's executive director; and Linda S. Dix, OSEP's reports officer/editor. Their helpful suggestions and comments were incorporated into the final document.

Finally, the humanities Ph.D.s who responded to the 1985 Survey made this report possible. Their continual cooperation and assistance with this longitudinal survey is greatly appreciated.

FOR FURTHER INFORMATION

Further analyses of the 1985 survey data will be done in 1986, and additional reports will be forthcoming. Meanwhile, questions may be directed to:

Survey of Doctorate Recipients
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Other reports of the National Research Council derived from the 1977-1983 Surveys of Doctorate Recipients are as follows and may be obtained from the Project Office at the above address:

Science, Engineering, and Humanities Doctorates in the United States (Biennial reports beginning with the 1977 SDR)

Employment of Humanities Ph.D.s: A Departure from Traditional Jobs (1980)

Employment of Minority Ph.D.s: Changes Over Time (1981)

Departing the Ivy Halls: Changing Employment Situations for Recent Ph.D.s (1983)

Humanists on the Move: Employment Patterns for Humanities Ph.D.s (1985)

SUMMARY OF FINDINGS

This report, based on the results of the fifth biennial survey of humanities doctorate recipients, describes the demographic and employment characteristics of humanities Ph.D.s who received their degrees between January 1942 and June 1984 and were residing in the United States in February 1985. In addition, results from the 1985 Survey are frequently compared to results from previous Surveys of Doctorate Recipients.

Population Level and Trends

- The number of humanities Ph.D.s in 1985 was estimated to be 90,600, 6.3 percent above the 85,200 estimated for 1983. Of these, 83,300 were in the labor force, 6.9 percent above the 77,900 estimated for 1983.

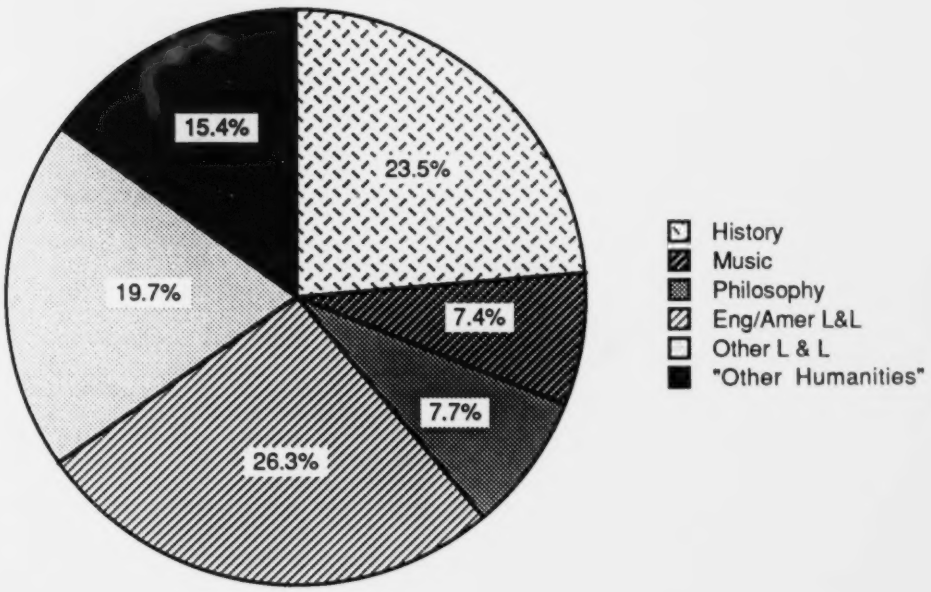
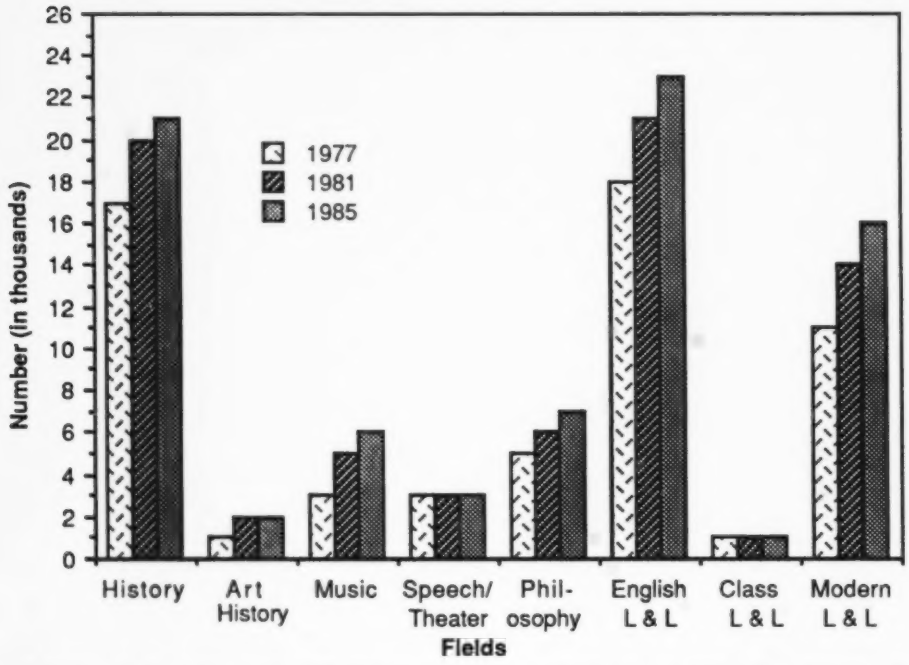


Figure I Humanities Ph.D. population, by field of doctorate, 1985 (N=90,600).

- Among the humanities disciplines, the greatest increases in numbers since 1981 were noted for the fields of English/American languages and literature, modern languages and literature, and music.



NOTE: For comparison purposes with earlier reports, American history and "other history" have been combined in this figure. The decrease noted for Ph.D.s in speech/theater between 1977 and 1981 was more a result of changes in definition for this field than an actual decrease in Ph.D. production. The field designated "other humanities" is not shown because the fields included in this category have changed over the years.

Figure II Distribution of the humanities doctoral population, by field, 1977, 1981, 1985.

Field Mobility

"Field mobility" is defined as "being employed in a field that differs from the field in which an individual earned his or her Ph.D."; thus, it is synonomous with "lack of retention" by a field.

- Overall, the fields of music (86.1 percent) and art history (84.8 percent) had the highest rates of retention, or the lowest occurrences of field mobility. The fields of "other humanities" (42.9 percent) and "other history" (56.8 percent) had the lowest rates of retention, or the highest occurrences of field mobility.

- Although there is variation by field, 22.0 percent of the humanities doctorates reported that they were employed in nonhumanities fields in 1985 (5.4 percent of these were employed in education).

Labor Force Utilization

In general, the percentages of humanities doctorates who were in the labor force (i.e., those employed full-time or part-time, those on a postdoctoral appointment, and those unemployed but seeking employment) during February of the survey year have remained fairly stable.

- In 1985, 83.0 percent of the humanities doctorates were employed on a full-time basis, 7.1 percent were employed part-time, 0.3 percent held postdoctoral appointments, and 1.5 percent were not employed but were seeking employment -- a total of 91.9 percent. The percentages of humanities Ph.D.s in the labor force for 1981 and 1977 were 91.7 percent and 92.4 percent, respectively.

Trends in Job Opportunities

Academe continued to be the principal employer of humanities Ph.D.s in 1985 (82 percent were working in educational institutions). This reflects a steady decline since 1977, when 88 percent of the humanities Ph.D.s were so employed.

- Business/industry not only continued to be the second most frequent employer of humanities Ph.D.s, but the percentage of humanities Ph.D.s employed in this segment has increased steadily since 1977. By field, approximately 10 percent of the Ph.D.s in the fields of music, speech/theater, philosophy, and "other humanities" reported being employed by business/industry in 1985.

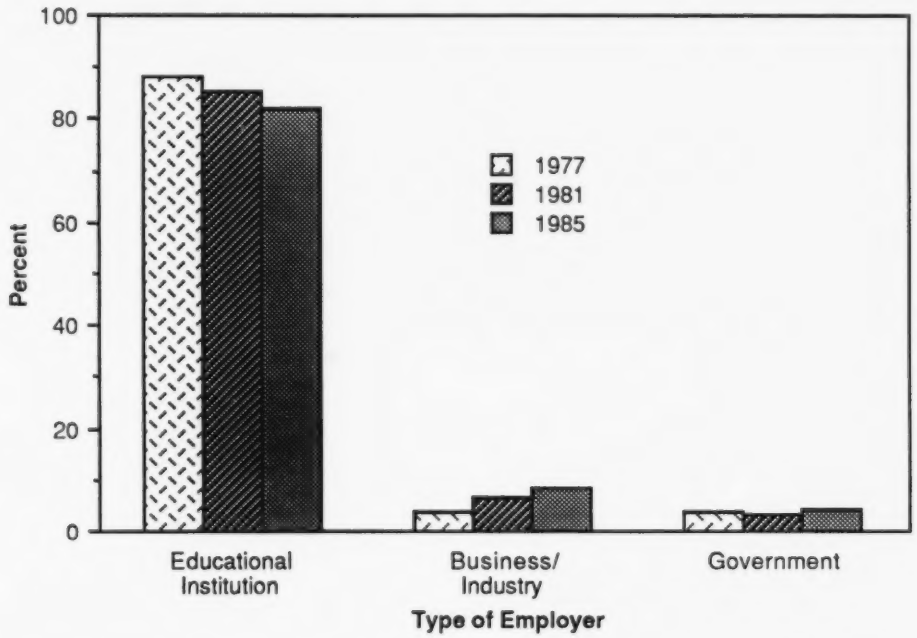


Figure III Distribution of employed humanists, by selected types of employers, 1977, 1981, 1985.

- Recent Ph.D.s were far less likely than the total Ph.D. humanities population to be working in 4-year colleges/universities and more likely to be employed by 2-year colleges and elementary and secondary schools.

Teaching continued to be the most frequently reported primary work activity for humanities Ph.D.s. Since 1981, however, there has been a steady decline in the percentage of Ph.D.s engaged primarily in teaching (from 69.7 percent in 1981 to 63.5 percent in 1985) and a slight increase in the percentage of those engaged in management/ administration, the second most frequently reported primary work activity (from 11 percent in 1981 to 12.9 percent in 1985).

- There were variations across fields. In modern languages and literature, 68.4 percent were primarily engaged in teaching. However, only 60.8 percent of American history Ph.D.s and 57.8 percent of "other history" Ph.D.s were similarly engaged. Management/administration was the primary activity of over 16 percent of history doctorates.

- Compared to the total humanities population, those Ph.D.s who earned their doctorates in the humanities between 1979 and 1984 had slightly lower percentages primarily engaged in teaching (62.2 percent) and management/administration (8.8 percent), but a higher percentage primarily engaged in research and development (7.0 percent compared to 4.9 percent for the total group).

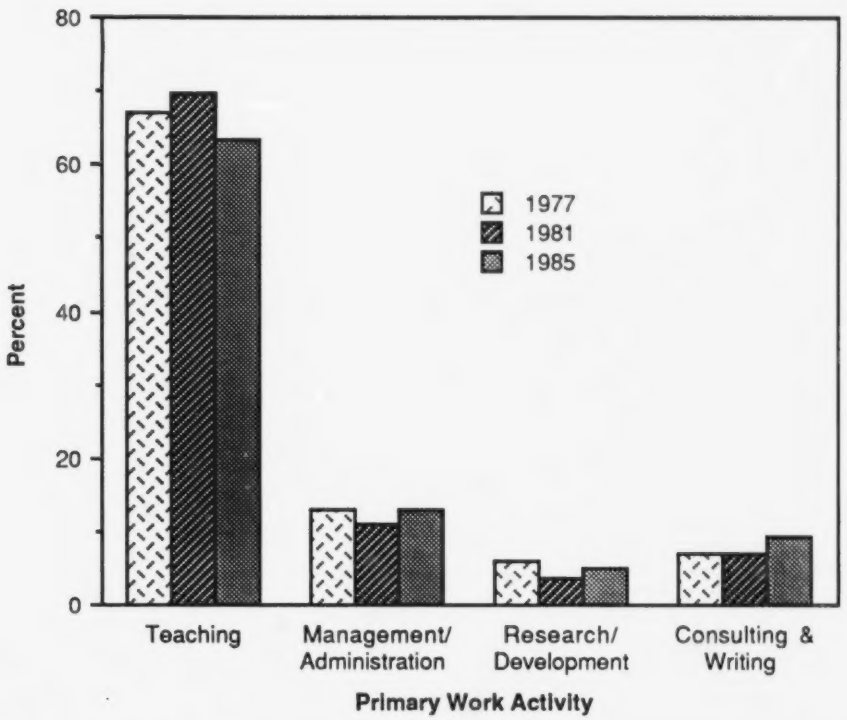


Figure IV Distribution of employed humanists, by selected primary work activities, 1977, 1981, 1985.

Salary Trends and Patterns

The median annual salary of humanities Ph.D.s employed full-time in 1985 was $34,600, a 12.7 percent increase from the 1983 median salary of $30,700. This increase reverses a trend noted in earlier surveys in which each subsequent survey showed a higher percentage increase in median annual salaries reported by humanities Ph.D.s.

- Median salaries ranged from a high of $37,300 for Ph.D.s in American history to a low of $31,500 for Ph.D.s in the general category, "other humanities."

- Men had median annual salaries of $35,800; women, $30,700.

- In general, the median annual salaries of men and women became more disparate with the increase in the number of years since the Ph.D. was awarded.

- The highest median annual salaries were earned by those employed in 4-year colleges/universities/medical schools and in 2-year colleges ($35,100 and $35,000, respectively). The lowest median annual salaries were earned by those in elementary/secondary schools and in business/industry ($30,000 and $30,800, respectively). Salaries of those employed in government increased from $28,000 in 1983 to $33,500 in 1985, an increase of more than 17 percent.

Academic Employment

- In general, the percentage of men who had achieved the rank of full professor was approximately twice that of women (45.3 percent vs. 23.8 percent, respectively), but the situation was reversed for the rank of assistant professor (25.1 percent for women vs. 12.9 percent for men).

- The percentage of both men and women in nontenured jobs has increased since 1983.

Demographic Characteristics

- Results from the survey showed that the percentage of women in the humanities Ph.D. population continued to increase slowly. Of the total Ph.D. humanists in the United States in February 1985, 29.7 percent were women, compared to 28.5 percent in 1983 and 27.2 percent in 1981.

- Members of racial/ethnic minority groups constituted 6.6 percent of the humanities Ph.D. population in 1985, compared to 6.2 percent in 1983.

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INTRODUCTION AND OVERVIEW OF SURVEY METHODOLOGY

The Survey of Doctorate Recipients (SDR), developed in 1973 to respond to the needs of the federal government for information on Ph.D. scientists and engineers in the United States, has been conducted on a biennial basis since its inception. Humanities doctorates were added to the sample in 1976 and were surveyed for the first time in 1977.

The survey sample is longitudinal--i.e., individual members of the sample are resurveyed every two years. With each cycle, Ph.D.s from the two earliest years are deleted, and Ph.D.s from the two most recent years are added, resulting in the maintenance of a 42-year span of coverage of doctorates.

This report is based on the fifth biennial survey of humanities doctorates,[1] who obtained their degrees between January 1942 and June 1984 and were residing in the United States in February 1985. This introductory section is followed by an examination of geographic differences, field-switching tendencies, and demographic characteristics. The next section presents an employment profile of the humanities doctorates and includes data on employment status, type of employer, and primary work activity. Because changes in the characteristics of a field are often first observed among the most recent graduates, statistics on Ph.D.s who graduated between 1979 and 1984 are reported separately from and compared to those for the total population of humanities Ph.D.s for several variables in this section. The employment section is followed by special analyses of median annual salaries of humanities Ph.D.s by gender, years since doctorate, and type of employer. In addition, data on those Ph.D.s who reported being academically employed in 1985 are presented in the closing section of the report.

The reader should note that the report is limited to the presentation of a statistical profile of these doctorates; the causal factors that underlie the statistical data are purposely not analyzed.

The 1985 Sample

The 1985 SDR humanities file contains data on 95,787 individuals who earned doctorates between January 1942 and June 1984. Foreign citizens who, at the time they received their degrees, indicated that they intended to leave the United States were excluded from the file.

The sampling frame[2] was stratified to assure coverage of all significant subpopulations. The stratification variables were field of doctorate, year of Ph.D., gender, racial/ethnic group, and citizenship. Each stratum had a sampling rate that varied from 3 to 100 percent, so as to provide a sufficiently large sample for small subgroups of the population. Within each stratum, a simple random sample was selected. The sample sizes

[1]Appendix A provides sample questionnaires from the 1985 survey.

[2]See Appendix B for further details on the sampling frame and Appendix C for sampling error information.

for the stratification categories are given in Appendix D. The overall sampling rate, from the roster of 95,787 Ph.D.s, was 16.2 percent.

Survey Methodology

The survey sample included 15,504 humanities doctorates, of whom 587 were not surveyed in 1985 because information from previous surveys indicated that they were deceased or out-of-scope.[3] The active sample, therefore, consisted of 14,917 individuals.

The first mailing of the 1985 survey was conducted in April 1985, and the follow-up mailing to those who had not yet responded took place in May 1985. An abbreviated questionnaire (see Appendix A) was mailed to the remaining nonrespondents in September 1985. The special form contained preprinted information that had been provided by the sample members in previous National Research Council surveys. The respondent was asked to verify this information as well as to provide responses to a few questionnaire items.

Weighting of Responses

Responses are defined as the total number of (1) completed questionnaires returned by sample members and (2) questionnaires returned with an indication that the sample member was deceased. Information was collected on 9,047 of the 14,917 individuals in the survey sample, yielding a response rate of 60.6 percent.[4] The response rate, when calculated on the basis of those in the sample who were actually contacted (13,560), was 66.7 percent.

Population estimates were made by weighting the responses received. Individuals known to be deceased or out-of-scope prior to the survey were excluded from the survey and weighted by sample weights (i.e., the ratio of a stratum's population size to its sample size). The responses received from the survey sample (14,917) were weighted by the product of the weight for nonresponse and the sample weight. The weight for nonresponse is the ratio of the number of survey sample cases in the stratum to the number of responses in the stratum. The weighting procedure is explained further in Appendix E. The estimated population size using all responses (95,787) is higher than the sum of the population estimates in the report (90,600), since it includes those known to be deceased and individuals residing in foreign countries.

[3]Out-of-scope is based on a response indicating that the individual satisfied the following three criteria: held a Ph.D. from a foreign institution; was a foreign citizen; and resided in a foreign country. The pre-survey deceased and the out-of-scope cases are inflated by their sample weights and then subtracted from the population that is used to calculate the population estimate weights.

[4]See Appendix D for detailed rates for the 1985 SDR.

DOCTORAL POPULATION BY FIELD

An estimated 90,600 individuals earned doctoral degrees in the humanities[5] between January 1942 and June 1984 and were residing in the United States in February 1985. This number represents a 6.3 percent increase from 1983, slightly higher than the 5.9 percent increase from 1981 to 1983 but lower than the 6.7 percent increase from 1979 to 1981.[6]

The humanities fields with the largest numbers of Ph.D.s continue to be English/American languages and literature (23,700, or 26.3 percent of all humanists), modern languages and literature (16,000, or 17.6 percent of humanists), and history, which has been divided into two separate fields for analytical purposes--American history (8,800, or 9.7 percent) and "other history" (12,500, or 13.8 percent).

Of the total 90,600 humanities doctorates, approximately 18,000 were employed in nonhumanities fields (4,400 in education[7]), and another 8,700[8] were not employed. These two groups represent approximately 30 percent of all humanities doctorates.

Table 1 gives the distribution of 1942-1984 humanities doctorates in the United States by field of doctorate and field of employment as of February 1985. For all fields except the general category of "unspecified other humanities," the number of Ph.D.s with degrees in specific fields equals or exceeds the number employed in those fields. The greatest disparities were noted for the fields of English/American languages and literature (23,700 degrees earned compared to 15,800 individuals employed, a difference of 7,900), "other history" (12,500 degrees earned compared to 7,500 individuals working in the field, a difference of 5,000), and modern languages and literature (16,000 degrees earned and 11,000 individuals employed, again a difference of 5,000). As noted earlier, these three fields were also the largest humanities fields in terms of Ph.D. production. The reader is cautioned in the interpretation of these figures, however, because the field of employment numbers include Ph.D.s from a variety of humanities fields, not just those who remain in the same field (i.e., not all of the 15,800 Ph.D.s employed in English and American

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[5]The categories for the humanities include American history; "other history" (history and philosophy of science and all history except American history); art history; music; speech/theater; philosophy; English/American languages and literature; classical languages and literature; modern languages and literature; and "other humanities" (linguistics, archeology, American studies, religious studies, and unspecified other humanities).

[6]See *Science, Engineering, and Humanities Doctorates: 1983 Profile*, Washington, D.C.: National Academy Press, 1985, and *Science, Engineering, and Humanities Doctorates: 1981 Profile*, Washington, D.C.: National Academy Press, 1982.

[7]For additional information on the estimated number of humanities Ph.D.s who were employed in each field category and on the 20.3 percent employed in the nonhumanities categories, see Appendix F.

[8]The reader should not use this figure to calculate an unemployment rate because it includes those individuals who were retired or unemployed but not seeking employment. For unemployment data, refer to Table 6, page 18.

TABLE 1 Distribution of Humanities Ph.D.s in the United States (1942-1984 Graduates), by Field of Doctorate and Field of Employment, 1985

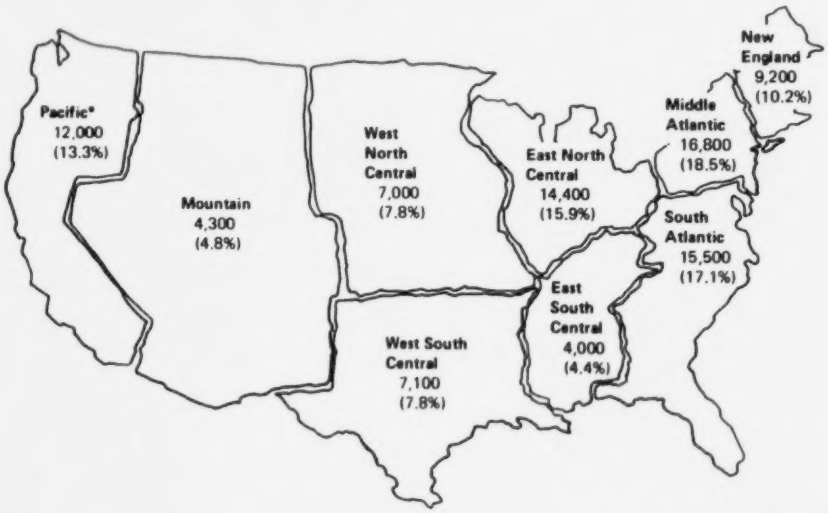
	Field of Doctorate		Field of Employment	
	N	%	N*	%
All Fields (N)	90,600	100.0	90,600	100.0
American History	8,800	9.7	6,500	7.2
"Other History"**	12,500	13.8	7,500	8.3
European History	5,400	6.0	3,500	3.9
Other History	4,900	4.5	3,600	3.9
History & Philosophy of Science	400	0.4	400	0.4
Unspecified History	1,800	2.0	***	--
Art History	2,700	2.9	2,300	2.5
Music	6,700	7.4	5,300	5.9
Speech/Theater	3,800	4.2	2,300	2.5
Philosophy	7,000	7.7	4,300	4.8
English and American Lang/Lit	23,700	26.3	15,800	17.4
Classical Lang/Lit	1,900	2.1	1,200	1.3
Modern Lang/Lit	16,000	17.6	11,000	12.2
"Other Humanities"	7,500	8.3	6,200	6.9
Linguistics	2,500	2.8	900	1.0
American Studies	1,600	1.7	500	0.6
Religious Studies	1,800	2.0	1,600	1.7
Unspecified Other Humanities	1,600	1.8	3,200	3.5
Nonhumanities			18,000	19.9
No Report on Employment Field			1,500	1.6
Not Employed			8,700	9.5

*Includes postdoctoral appointees as well as Ph.D.s employed full-time and part-time.
**"Other History" includes those subfields listed below that heading. Other History, which is one of the subfields, includes the history of all countries except America and those in Europe.
***"Unspecified history" was not an option on the employment specialties list.

languages and literature have degrees in those fields). The magnitude of this field switching is explained more fully in the section on field mobility.[9]

Geographic Differences

The regional distribution of humanities Ph.D.s in the United States in 1985 (see Figure 1) was close to that of the total population except in New England, which had 10.2 percent of the humanities Ph.D.s but only 5.3 percent of the total population. The Middle Atlantic and South Atlantic regions had the most humanities doctorates--16,800 (18.5 percent) and 15,500 (17.1 percent), respectively. The regions with the fewest humanities Ph.D.s were the East South Central region (4,000, or 4.4 percent) and the Mountain region (4,300, or 4.8 percent).



*Includes Alaska and Hawaii.

NOTE: By region, Census Bureau estimates for the total U.S. population in 1985 are broken down as follows: New England, 5.3 percent; Middle Atlantic, 15.6 percent; East North Central, 17.4 percent; West North Central, 7.4 percent; South Atlantic, 16.8 percent; East South Central, 6.3 percent; West South Central, 11.1 percent; Mountain, 5.4 percent; and Pacific, 14.7 percent.

Figure 1 Regional distribution of the U.S. population of humanities doctorates and percentage distribution of the total Ph.D. population, 1985 (estimated population of 1942-1984 humanities Ph.D.s in the U.S. = 90,300 excluding 300 in U.S. possessions).

Field Mobility of Employed Ph.D.s

In February 1985, the number of employed humanities Ph.D.s was 81,900, or 90.4 percent of the total population of humanities doctorates in the United States. This

[9]The effects and implications of this relatively frequent incidence of humanists being employed in nonhumanities fields are examined in a special study based on the 1983 Survey of Doctorates Recipients: Mary Belisle and Betty D. Maxfield, *Humanists on the Move: Employment Patterns for Humanities Ph.D.s*, Washington D.C.: National Academy Press, 1985.

TABLE 2 Field Mobility of Employed Humanities Doctorates (1942-1984 Graduates), 1985 (in percent)

1985 Field of Employment	Total Employed*	Field of Doctorate: Amer History	"Other History"	Art History	Music	Speech/ Theater	Philosophy	English/ Amer Lang & Lit	Classical Lang & Lit	Modern Lang & Lit	"Other Humanities"
All Fields (N)	81,900	8,000	11,400	2,400	6,100	3,400	6,600	21,300	1,700	14,200	6,800
American History	7.9	**64.5**	8.7	0.1	0.0	0.3	0.0	0.1	0.4	0.1	4.0
"Other History"	9.1	9.1	**56.8**	0.6	0.0	0.8	0.3	0.1	2.0	0.4	1.2
Art History	2.8	0.0	0.6	**84.8**	0.0	0.0	0.0	0.2	0.7	0.1	1.5
Music	6.5	0.2	0.0	0.0	**86.1**	0.0	0.0	0.0	0.2	0.1	0.0
Speech/Theater	2.8	0.0	0.1	0.1	0.1	**62.6**	0.2	0.3	0.0	0.1	0.4
Philosophy	5.3	0.0	0.4	0.0	0.3	0.0	**63.3**	0.0	0.8	0.1	0.6
Eng/Amer Lang & Lit	19.2	0.0	0.1	0.0	0.1	5.2	0.4	**67.2**	1.4	3.8	10.4
Classical Lang & Lit	1.5	0.0	0.2	0.2	0.0	0.2	0.0	0.1	**61.6**	0.6	0.4
Modern Lang & Lit	13.4	0.0	0.3	0.0	0.0	0.4	0.2	1.5	4.6	**71.4**	6.3
"Other Humanities"	7.6	2.1	1.2	3.0	1.1	2.6	5.1	7.6	6.5	5.2	**42.9**
Nonhumanities	22.0	21.6	29.9	9.7	11.1	25.5	27.4	21.4	20.8	16.4	30.5
No Report	1.8	2.5	1.7	1.6	1.1	2.5	3.1	1.5	1.1	1.6	1.9

*Includes postdoctoral appointees as well as Ph.D.s employed full-time and part-time.

percentage has remained relatively constant over the past several years (90.3 percent in 1981 and 89.9 percent in 1983).

As shown in Table 2, these humanities Ph.D.s are distributed across a variety of employment fields. The percentage of Ph.D.s from a given field who remain in the same field when employed is defined as the retention rate of the field. On the other hand, a humanities Ph.D. who is employed either in a nonhumanities field or in a broadly defined humanities field[10] that is different from his/her degree field is defined as "field mobile." The largest percentage of field-mobile Ph.D.s tended to secure employment in nonhumanities fields (primarily in education). Figure 2 shows the distribution of the Ph.D.s who were employed in nonhumanities fields.

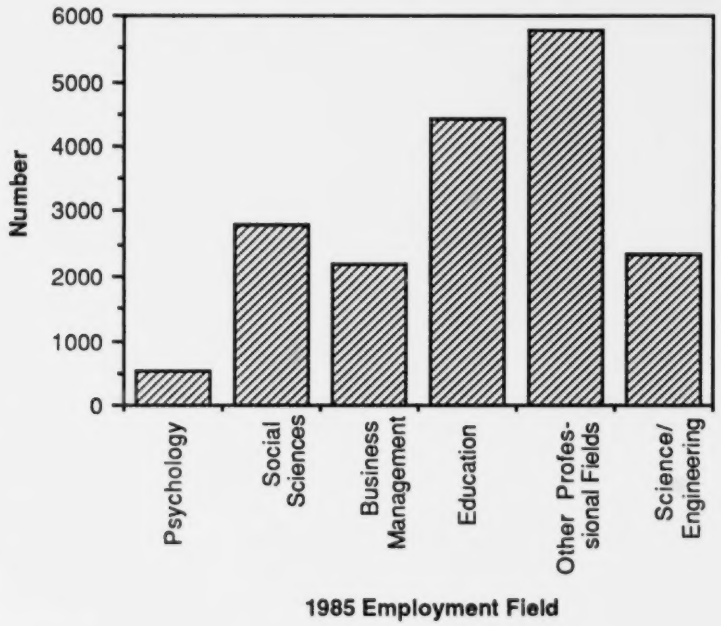


Figure 2 Distribution of humanities Ph.D.s employed in nonhumanities fields in 1985.

The disciplines with the highest retention rates were music (86.1 percent of the 6,100 employed music Ph.D.s) and art history (84.8 percent of the 2,400 employed art history Ph.D.s). The lowest retention rate occurred for those Ph.D.s categorized in "other humanities" (which includes linguistics, archeology, American studies, religious studies, and unspecified other humanities). This tendency for high mobility may, however, be related to the fact that this is such a diversified group that the individuals therein do not behave like a group in which the individuals had similar training and Ph.D. experiences. Of the 6,800 Ph.D.s in the "other humanities" group, 30.5 percent were employed in nonhumanities fields such as education or social sciences. About the same amount of outflow to nonhumanities occurred for those Ph.D.s with degrees in "other history," where almost one-third of the 11,400 Ph.D.s indicated that they were employed in nonhumanities areas in 1985.

[10]Broadly defined humanities fields are those listed in Table 2 under "field of doctorate."

TABLE 3 Demographic Characteristics of Humanities Ph.D.s (1942-1984 Graduates), by Field of Doctorate, 1985 (in percent)

Demographic Characteristics	All Fields	Field of Doctorate: Amer History	"Other History"	Art History	Music	Speech/ Theater	Phil- osophy	English/ Amer Lang & Lit	Clas- sical Lang & Lit	Modern Lang & Lit	"Other Human- ities"
Total Population (N)	90,600	8,800	12,500	2,700	6,700	3,800	7,000	23,700	1,900	16,000	7,500
Gender											
Male	70.3	85.1	80.9	49.2	77.5	75.2	84.6	64.9	71.1	56.4	67.5
Female	29.7	14.9	19.1	50.8	22.5	24.8	15.4	35.1	28.9	43.6	32.5
Racial/Ethnic Group											
White	92.1	94.4	91.0	93.9	93.7	95.7	95.1	94.7	97.0	85.0	90.1
Minority Group	6.6	4.0	7.4	4.6	5.6	3.1	4.4	3.5	1.8	13.9	9.0
Hispanic	2.9	0.9	2.3	1.0	0.9	0.4	1.2	1.1	0.6	10.5	1.6
Black	1.8	2.9	2.1	0.8	3.2	1.7	0.6	1.6	0.7	1.5	2.4
Asian	1.6	0.1	2.5	2.5	1.3	0.5	2.3	0.7	0.1	1.7	5.0
American Indian	0.2	0.1	0.5	0.2	0.2	0.5	0.3	0.0	0.4	0.2	0.1
Other	0.1	0.3	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.1	0.1
No Report	1.3	1.3	1.6	1.3	0.7	1.2	0.4	1.8	1.2	1.0	0.8
Age in 1985											
Under 30	0.2	0.0	0.2	0.0	0.7	0.1	0.4	0.2	0.3	0.2	0.2
30-34	5.4	4.3	4.0	6.1	10.3	5.0	6.1	4.1	6.1	4.9	9.1
35-39	15.5	13.5	12.2	22.2	19.3	12.9	17.6	14.0	17.2	15.6	21.6
40-49	39.1	41.2	40.9	37.9	32.4	33.0	39.7	41.2	35.7	39.4	36.3
50-59	22.4	25.4	23.5	19.8	23.2	26.1	19.6	21.9	20.5	22.6	19.1
60 and over	17.2	15.6	19.1	14.0	14.0	22.8	16.4	18.6	20.0	17.0	13.7
No Report	0.1	0.0	0.1	0.0	0.1	0.2	0.1	0.0	0.3	0.2	0.0
Median Age (Years)	47	47	48	45	46	49	46	47	47	47	45
Calendar Year of Ph.D.											
1942-1949	2.9	2.2	5.0	1.6	1.2	1.6	3.3	3.3	6.2	2.6	1.4
1950-1959	10.2	13.2	11.6	8.1	7.5	12.0	11.3	10.2	11.8	9.7	6.7
1960-1969	23.0	24.7	26.4	16.7	15.8	31.0	23.8	25.1	28.7	20.5	16.4
1970-1979	47.0	45.4	44.3	50.6	49.3	39.1	47.1	47.7	39.9	50.5	46.0
1980-1982	11.5	10.4	9.3	14.5	16.7	10.1	10.5	9.5	10.0	11.2	19.9
1983-1984*	5.4	4.2	3.5	8.3	9.6	6.3	4.2	4.2	3.5	5.6	9.6
Citizenship											
U.S.	96.6	99.5	97.3	94.3	97.6	98.4	96.9	98.7	96.5	92.0	94.6
Foreign**	3.2	0.5	2.4	5.6	2.2	1.3	2.9	1.2	2.9	7.9	5.4
No Report	0.2	0.0	0.3	0.1	0.2	0.2	0.2	0.2	0.6	0.1	0.0

*Excludes Ph.D.s awarded July-December 1984.
**In view of the lack of a comprehensive sampling frame for foreign-earned Ph.D.s in the United States, the number of humanities Ph.D.s who are foreign citizens may be somewhat underestimated.

With the exception of "other history" and "other humanities," the retention rates for humanities fields were 60 percent or higher. There was relatively greater field mobility between history fields: American history and "other history" (9.1 percent and 8.7 percent, respectively); between languages and literature: classical to modern (4.6 percent) and modern to English/American (3.8 percent); and from speech/theater to English/American languages and literature (5.2 percent). Because these fields have similarities in content area, the transfer from one to the other is relatively easy.

Demographic Characteristics by Field of Doctorate

The composition of the various fields with regard to sex, racial/ethnic identification, age, and citizenship is given in Table 3. Results from the 1985 survey show that women continued to slowly increase their share of the humanities Ph.D. population: of the total Ph.D. humanists in the United States in February 1985, 29.7 percent were women, compared to 27.2 percent in 1981 and 21.9 percent in in 1977. Figure 3 shows the percentage of women in each field for survey years 1977, 1981, and 1985.

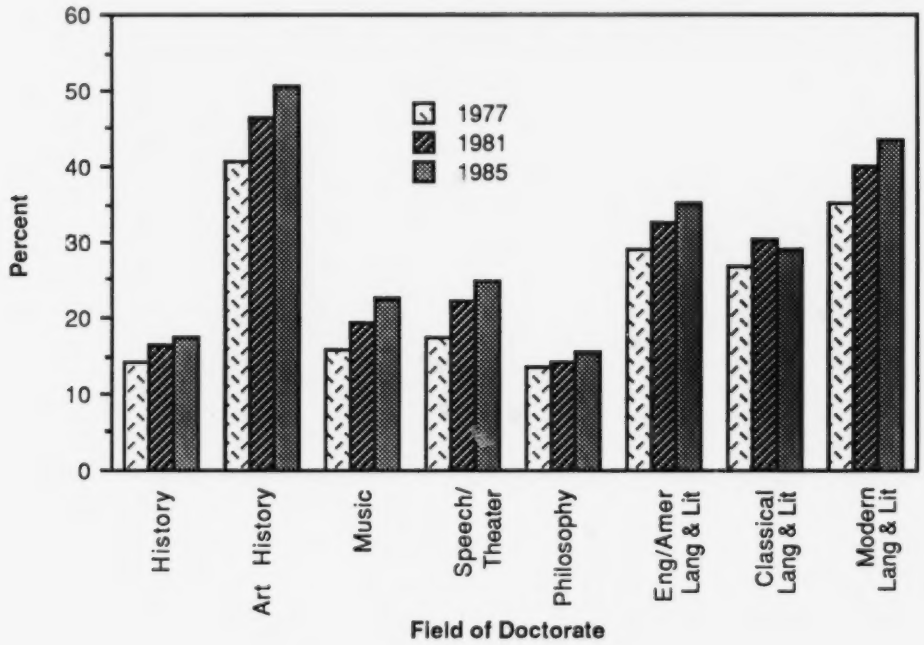


Figure 3 Percentage of women in the humanities doctoral population, 1977, 1981, 1985.

Findings from previous SDR surveys showed that men consistently outnumbered women in all humanities fields. This was not true in 1985, where analyses show that women outnumbered men in the field of art history (50.8 percent of the 1942-1984 Ph.D.s were women). The reader should keep in mind, however, that art history is one of the smallest fields in the humanities, having 2,700 Ph.D.s. Therefore, an increase in the percentage of women in this field does not constitute a significant increase for women in humanities overall.

As was true in 1983, the representation of women in most fields increased by 1-2 percent, except in classical languages and literature, where women have shown a steady decline of about 1 percent since the 1981 survey. Other fields where relatively high percentages of women were represented were modern languages and literature (43.6 percent of the 16,000 Ph.D.s), English/American languages and literature (35.1 percent of the 23,700 Ph.D.s), and "other humanities" (32.5 percent of the 7,500 doctorates). While the percentages of women in history and philosophy are increasing (from 14.3 percent in 1977 to 17.4 percent in 1985 in history and from 13.5 percent in 1977 to 15.4 percent in 1985 in philosophy), these fields continue to have the lowest percentages of women.

Members of racial/ethnic minority groups (i.e., Blacks, American Indians, Asians, and Hispanics) constituted 6.6 percent of the humanities Ph.D. population in 1985, increasing from 6.2 percent in 1983. As seen in Figure 4, this small increase in the percentage of minorities has been consistently observed since 1977, when minorities represented 4.7 percent of the population. The field that had the highest representation of minorities was modern languages and literature, in which 10.5 percent of the Ph.D.s were Hispanic and 3.4 percent were Black, Asian, or American Indian. Representation of Blacks, Asians, American Indians, and Hispanics was small across the remaining humanities fields, ranging from 3.2 percent for Blacks in music to less than 0.1 percent for American Indians in English/American languages and literature. Although all humanities fields have a small representation of minorities, only the American Indian group has shown a decline since 1979 (0.4 percent to 0.2 percent). For the same period, Blacks have increased their representation from 1.5 percent to 1.8 percent, and Asian representation has increased from 1.1 percent to 1.6 percent.

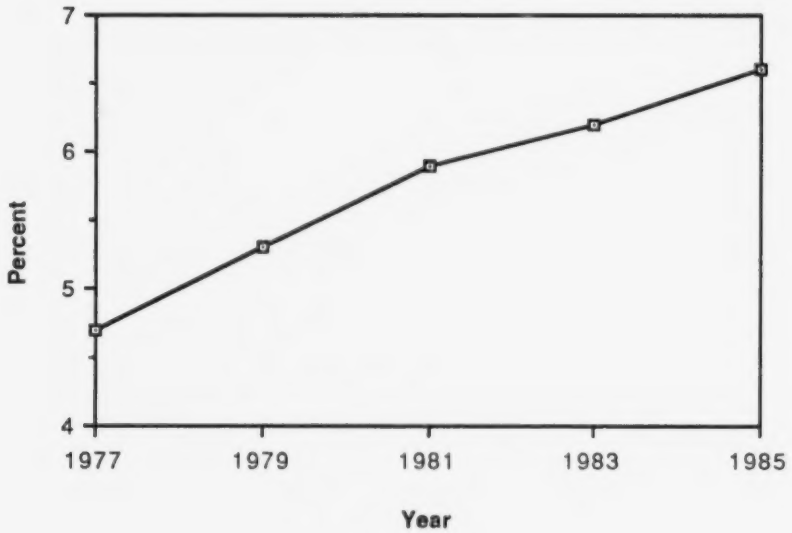


Figure 4 Percentage of minorities in the humanities doctoral population, 1977-1985.

The median age of Ph.D. humanists increased in 1985. It had been a steady 45 years during the 1981 and 1983 surveys; however, the median age of Ph.D. humanists in 1985 was 47 years. This age increase is related to the fact that Ph.D. production has

decreased slightly and graduates are slightly older when receiving their doctorates.[11] Overall, only one-fifth of the Ph.D. humanists were younger than 40 years of age. The fields of "other humanities," music, and art history had the highest percentage of Ph.D.s under 40 years of age: 30.9 percent, 30.3 percent, and 28.3 percent, respectively. As was true in past surveys, Ph.D.s in speech/theater were oldest, with almost 50 percent falling into the "50 years and older" category.

A review by field of the calendar year in which Ph.D.s were awarded provides an indication of the relative growth and the attractiveness of the fields over time. For example, the fields of art history, music, and "other humanities" have produced approximately two-thirds of their doctorates since 1970. Fields such as classical languages and literature, speech/theater, and "other history" have produced only 53.4 percent, 55.5 percent, and 57.1 percent, respectively, during the 1970-1984 period.

In 1985, 3.2 percent of the humanities Ph.D.s in the United States were foreign citizens, a slight increase from 1983 and 1981 figures (3.0 and 2.7 percent, respectively). The degree fields with the highest percentage of foreign citizens have remained the same over the years: modern languages and literature (7.9 percent), art history (5.6 percent), and "other humanities" (5.4 percent). The field of American history had the lowest percentage of foreign citizens, 0.5 percent. However, as the SDR does not have a comprehensive sampling frame for foreign-earned Ph.D.s, these percentages are most likely an underestimation of the representation of foreign citizens in the Ph.D. population in the United States.

[11]The median age of the 3,745 humanities doctorates who graduated in FY1981 was 33.5 years. In FY1984, the number graduating dropped to 3,528 and their median age rose to 34.5 years. See *Summary Report 1981: Doctorate Recipients from United States Universities*, Washington, D.C.: National Academy Press, and *Summary Report 1984: Doctorate Recipients from United States Universities*, Washington, D.C.: National Academy Press.

EMPLOYMENT

Employment Status by Field of Doctorate

Approximately 83 percent of the 90,600 humanities doctorates who earned their degrees during 1942-1984 were employed in full-time positions in February 1985 (Table 4). As can be seen in Figure 5, this percentage has declined slightly since 1977, when approximately 84 percent were employed full-time. The percentage holding part-time positions, on the other hand, has been increasing over this time period--from 4.6 percent in 1977 to 7.1 percent in 1985. The small percentage who reported that they were on postdoctoral appointments[12] declined even further, from 1.0 percent in 1977 to 0.3 percent in 1985.

The percentage of doctorates who were not employed has decreased slightly over the years: 9.6 percent in 1977, 9.2 percent in 1981, and 9.0 percent in 1985. The reader is cautioned, however, that the 9.6 percent classified as "not employed" is NOT an unemployment rate. This rate is calculated on the total population of 1942-1984 humanities doctorates and therefore includes those who were retired (6.2 percent), those who were not seeking employment (1.6 percent), and those not reporting employment status (0.3 percent)--none of whom are considered part of the labor force in this report.

For purposes of this report, the 1985 humanities doctoral labor force consists of those Ph.D.s who were either on postdoctoral appointments, employed in full-time or part-time jobs, or unemployed but seeking employment during February 1985. The percentage of humanities doctorates in the labor force during February of the survey years has remained relatively constant: 92.3 percent in 1977; 91.1 percent in 1979; 91.7 percent in 1981; 91.4 percent in 1983; and 91.6 percent in 1985. Characteristics of the humanities labor force will be discussed in the following section.

Philosophy continued to have the highest percentage of Ph.D.s in full-time employment, 88.1 percent. However, the only field with a notable increase since 1983 in the percentage employed full-time was modern languages and literature (81.7 percent in 1985 compared to 78.2 percent in 1983). In the other humanities fields, the percentage employed full-time was stable or increased only slightly. Ph.D.s in art history were an exception, with 77.0 percent reporting full-time employment in 1985 compared to 78.4 percent in 1983. Along with having the lowest percentage of those employed full-time, art history continued to show the highest percentage employed in part-time jobs (10.5 percent) and on postdoctoral appointments (1.6 percent). In fact, this was the only field with greater than 1.0 percent on postdoctoral appointments; all other humanities fields had 0.5 percent or less.

The fields of classical languages and literature and modern languages and literature had the highest percentages of Ph.D.s who were not employed in February 1985 (11.2 percent and 11.1 percent, respectively). However, over half of these Ph.D.s were retired (6.0 percent and 6.3 percent, respectively), and an additional 2 percent in each

[12]This category includes postdoctoral fellowships, traineeships, research associateships, and internships.

TABLE 4 Employment Status of Humanities Ph.D.s (1942-1984 Graduates), by Field of Doctorate, 1985 (in percent)

Employment Status	All Fields	Field of Doctorate: Amer History	"Other History"	Art History	Music	Speech/ Theater	Phil-osophy	English/ Amer Lang & Lit	Clas-sical Lang & Lit	Modern Lang & Lit	"Other Human-ities"
Total Population (N)	90,600	8,800	12,500	2,700	6,700	3,800	7,000	23,700	1,900	16,000	7,500
Employed Full-Time	83.0	86.0	84.6	77.0	82.6	82.1	88.1	81.7	80.7	81.7	82.7
Employed Part-Time	7.1	5.4	6.4	10.5	8.7	7.8	6.1	7.3	7.7	6.9	7.8
Postdoctoral Appointment*	0.3	0.3	0.1	1.6	0.4	0.2	0.5	0.2	0.4	0.3	0.4
Not Employed**	9.6	8.2	8.9	10.9	8.3	9.9	5.3	10.8	11.2	11.1	9.1
Seeking Employment	1.5	1.0	1.8	1.9	2.1	0.9	1.1	0.9	2.3	2.5	1.9
Not Seeking Employment	1.6	0.7	0.9	2.0	0.6	1.0	1.1	2.2	2.0	2.2	1.6
Retired	6.2	6.0	5.5	5.6	5.6	7.8	3.0	7.6	6.0	6.3	5.1
Other	0.3	0.5	0.7	1.4	0.1	0.2	0.1	0.0	0.9	0.0	0.5

*The percentages of postdoctoral appointees may be underestimated because information about foreign Ph.D.s who came to the U.S.for postdoctoral research or study is incomplete.

**Percentages are not unemployment rates because they are calculated on the total population, which includes those retired, those not seeking employment, and those not reporting status, none of whom are considered part of the labor force in this report.

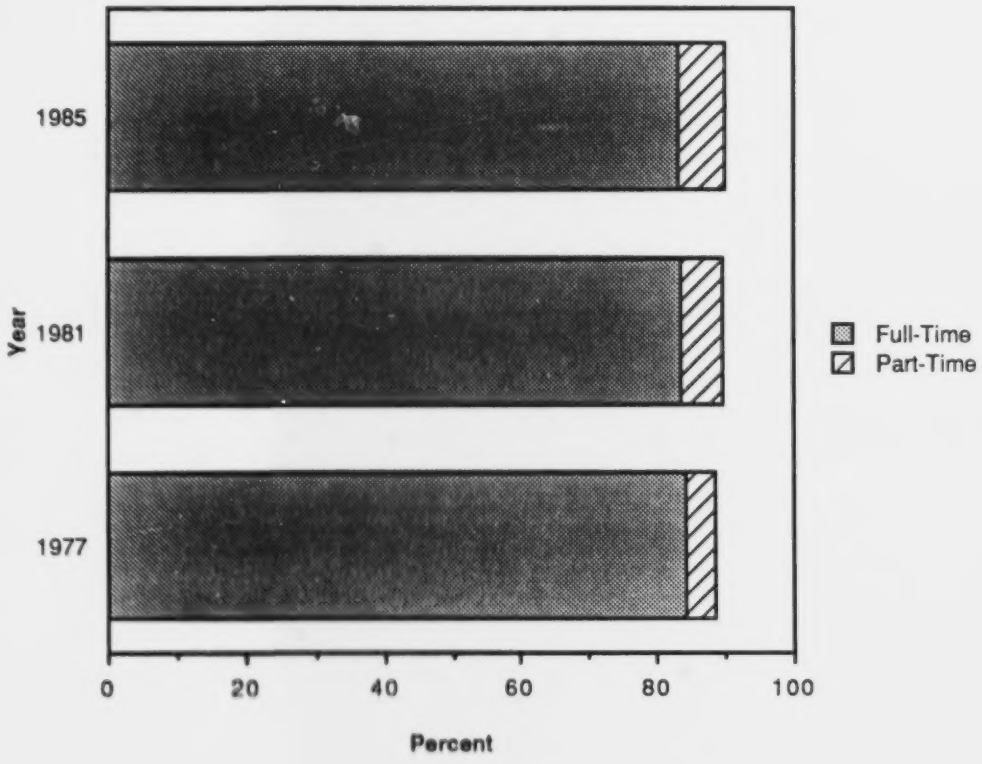


Figure 5 Percentage of the humanities doctoral population employed full-time or part-time, 1977, 1981, 1985.

field were not seeking employment. Overall, though, the fields of speech/theater and English/American languages and literature had the highest percentages of Ph.D.s who were retired in 1985: 7.8 percent and 7.6 percent, respectively. The field of philosophy had the lowest percentage of retired Ph.D.s, only 3.0 percent of its 7,000 members.

Employment Status of Recent Ph.D.s

As shown in Table 5, the percentages of 1979-1984 Ph.D.s in full-time jobs was similar to percentages for the total cohort across fields, except in modern languages and literature, where only 76.7 percent of the recent graduates reported being in full-time jobs, compared to 81.7 percent of the total Ph.D.s in the field. For all humanities Ph.D.s, the most notable difference between the recent Ph.D. graduates and the total cohort was the higher percentage of recent Ph.D.s who were in part-time jobs--11.3 percent, compared to 7.1 percent of the total cohort. This difference between the recent graduates and the total cohort can be seen within each humanities field as well.

Postdoctoral appointments are most frequently held by recent graduates, but for humanities Ph.D.s the percentages in this category are small even for the recent cohort--less than 1.0 percent for all fields except art history, which had 3.3 percent of its 700 recent graduates on postdoctoral appointments in February 1985.

TABLE 5 Employment Status of Humanities Ph.D.s (1979-1984 Graduates), by Field of Doctorate, 1985 (in percent)

Employment Status	All Fields	Field of Doctorate: Amer History	"Other History"	Art History	Music	Speech/ Theater	Phil-osophy	English/ Amer Lang & Lit	Clas-sical Lang & Lit	Modern Lang & Lit	"Other Human-ities"
Total Population(N)	18,900	1,400	2,000	700	2,200	800	1,400	4,200	300	3,400	2,500
Employed Full-Time	82.0	87.4	84.7	77.5	81.5	83.3	87.1	81.7	81.2	76.7	83.2
Employed Part-Time	11.3	5.9	9.4	12.1	13.8	11.0	8.8	11.8	14.1	13.3	11.0
Postdoctoral Apptointment*	0.6	0.1	0.4	3.3	0.6	0.9	0.4	0.2	1.8	0.7	0.3
Not Employed**	6.2	6.6	5.5	7.1	4.0	4.8	3.7	6.2	2.9	9.4	5.5
Seeking Employment	**2.7**	**5.3**	**0.9**	**4.3**	**2.9**	**2.5**	**0.4**	**1.4**	**1.4**	**5.2**	**2.5**
Not Seeking Employment	**2.5**	**1.3**	**1.0**	**1.3**	**1.2**	**1.3**	**2.1**	**4.3**	**1.4**	**3.5**	**2.0**
Retired	**0.6**	**0.0**	**0.8**	**0.9**	**0.0**	**0.0**	**1.1**	**0.6**	**0.0**	**0.6**	**0.8**
Other	**0.4**	**0.0**	**2.8**	**0.5**	**0.0**	**0.9**	**0.0**	**0.0**	**0.0**	**0.1**	**0.2**

*The percentages of postdoctoral appointees may be underestimated because information about foreign Ph.D.s who came to the U.S.for postdoctoral research or study is incomplete.

**Percentages are not unemployment rates because they are calculated on the total population, which includes those retired, those not seeking employment, and those not reporting status, none of whom are considered part of the labor force in this report.

Recent graduates in modern languages and literature had the highest percentage (9.4) who were not employed in 1985. A further breakdown of this group shows that 5.2 percent were seeking employment, but another 4.1 percent were either retired or unemployed and not seeking employment. The latter statistic is surprising in view of the fact that it applies to recent graduates. The same kind of finding is noted in the field of English/American languages and literature, where 4.9 percent of the 4,200 Ph.D.s in the recent cohort indicated that they were either retired or not employed and not seeking employment. Various possible explanations for these figures include lack of suitable job opportunities in one's field, no financial requirement to work, dependent children limiting one's flexibility in the job market, earning the doctorate at an advanced age, or discouragement with the job market.

Labor Force

As mentioned earlier, the labor force is defined as those Ph.D.s who are employed full-time or part-time, on postdoctoral appointments, or unemployed but seeking employment. Of the total humanities Ph.D. labor force in 1985 (approximately 83,300), 90.2 percent were employed in full-time positions, and 1.7 percent were unemployed but seeking employment (Table 6). The remaining 8.1 percent of the labor force held part-time jobs or postdoctoral appointments. Of the 7.7 percent who were employed in part-time jobs, less than one-third (2.5 percent) were seeking full-time employment. The unemployment rate (1.7 percent) has remained unchanged since 1983.

By field, the unemployment rates varied slightly, with modern languages and literature and classical languages and literature having the highest rates (2.7 percent and 2.6 percent, respectively) and American history and philosophy the lowest (1.1 and 1.0 percent, respectively). More than half of the Ph.D.s in "other humanities" who were employed part-time were seeking full-time employment. In all other fields, only 20-35 percent of the part-time employed were seeking full-time employment.

The unemployment rate for the recent graduates (Table 7) was higher than for the total group of humanities Ph.D.s (2.8 percent compared to 1.7 percent). By field, recent Ph.D.s in modern languages and literature and American history had the highest percentages unemployed (5.4 percent and 5.3 percent, respectively). Also, of the 11.7 percent recent graduates who were employed part-time, more than half (6.2 percent) were seeking full-time employment (compared to less than one-third for the total group). Thus, it may be concluded that the recent graduates in the humanities have a somewhat more difficult time securing jobs than the group as a whole.

Geographic Distribution

By region, the number of Ph.D.s in the labor force varied greatly (Table 8). The smallest number of humanities Ph.D.s in the labor force were in the East South Central (3,700) and Mountain (3,900) regions. On the other hand, the Middle Atlantic region and the South Atlantic region had the greatest number of humanists in the labor force (15,700 and 14,300, respectively).

With reference to employment status across the regions, the West North Central region (Iowa, Kansas, Minnesota, Missouri, North Dakota, Nebraska, and South Dakota) had the highest percentage of humanists who were employed full-time (93.2 percent of the 6,500 Ph.D.s in the labor force in the region). All the other regions, except the Pacific region, had full-time employment rates of approximately 90 percent.

As was true in previous years, the Ph.D.s in the Pacific region (Alaska, California, Hawaii, Oregon, and Washington) had the lowest rate of full-time employment

TABLE 6 Employment and Unemployment of Humanities Ph.D.s (1942-1984 Graduates) in the United States Labor Force, by Field of Doctorate, 1985 (in percent)

Employment Status	All Fields	Field of Doctorate: Amer History	"Other History"	Art History	Music	Speech/ Theater	Phil- osophy	English/ Amer Lang & Lit	Clas- sical Lang & Lit	Modern Lang & Lit	"Other Human- ities"
1985 Labor Force* (N)	83,300	8,100	11,700	2,400	6,300	3,500	6,700	21,400	1,700	14,600	6,900
Employed Full-Time	90.2	92.7	91.1	84.6	88.1	90.2	92.0	90.7	88.6	89.4	89.1
Employed Part-Time	7.7	5.9	6.9	11.6	9.2	8.5	6.4	8.1	8.4	7.6	8.4
Seeking Full-Tme	**2.5**	**1.6**	**1.8**	**2.9**	**2.7**	**2.6**	**1.6**	**2.8**	**2.7**	**2.7**	**4.3**
Not Seeking Full-Time**	**5.2**	**4.2**	**5.2**	**8.7**	**6.6**	**6.0**	**4.7**	**5.3**	**5.7**	**4.9**	**4.1**
Postdoctoral Appointment	0.4	0.4	0.1	1.7	0.5	0.2	0.5	0.3	0.4	0.3	0.4
Unemployed/Seeking	1.7	1.1	1.9	2.1	2.2	1.0	1.2	1.0	2.6	2.7	2.1

*Includes those employed full-time or part-time, postdoctoral appointees, and those seeking employment.
**Includes those who did not report whether they were seeking full-time employment.

TABLE 7 Employment and Unemployment of Humanities Ph.D.s (1979-1984 Graduates) in the United States Labor Force, by Field of Doctorate, 1985 (in percent)

Employment Status	All Fields	Field of Doctorate: Amer History	"Other History"	Art History	Music	Speech/ Theater	Phil-osophy	English/ Amer Lang & Lit	Clas-sical Lang & Lit	Modern Lang & Lit	"Other Human-ities"
1985 Labor Force* (N)	18,300	1,400	1,900	700	2,200	700	1,300	4,000	300	3,300	2,500
Employed Full-Time	84.9	88.6	88.7	79.7	82.5	85.2	90.0	85.9	82.4	80.0	85.7
Employed Part-Time	11.7	6.0	9.8	12.5	13.9	11.2	9.1	12.4	14.3	13.8	11.4
Seeking Full-Time	**6.2**	**6.0**	**5.9**	**4.7**	**4.7**	**4.7**	**4.2**	**8.1**	**7.3**	**7.2**	**5.5**
Not Seeking Full-Time**	**5.5**	**0.0**	**3.9**	**7.8**	**9.3**	**6.5**	**4.9**	**4.3**	**7.0**	**6.6**	**5.9**
Postdoctoral Appointment	0.6	0.1	0.5	3.4	0.7	0.9	0.5	0.2	1.8	0.7	0.3
Unemployed/Seeking	2.8	5.3	1.0	4.4	2.9	2.6	0.5	1.4	1.5	5.4	2.6

*Includes those employed full-time or part-time, postdoctoral appointees, and those seeking employment.
**Includes those who did not report whether they were seeking full-time employment.

TABLE 8 Employment and Unemployment of Humanities Ph.D.s in the United States Labor Force, by Region, 1985 (in percent)

1985 Location (Region)	Total Ph.D. Labor Force (N)*	1985 Labor Force Status			
		Employed Full-time	Employed Part-time	Postdoctoral Appointment	Unemployed & Seeking Employment
All Regions	83,300	90.2	7.7	0.4	1.7
New England	8,500	89.6	8.4	0.1	1.9
Middle Atlantic	15,700	89.7	8.0	0.4	1.9
East North Central	13,100	91.0	7.5	0.1	1.4
West North Central	6,500	93.2	5.5	0.2	1.1
South Atlantic	14,300	90.8	7.1	0.8	1.3
East South Central	3,700	90.0	7.0	1.0	1.9
West South Central	6,600	92.1	6.6	0.1	1.1
Mountain	3,900	91.7	6.9	0.2	1.3
Pacific	10,800	86.4	10.4	0.4	2.8
U.S. Possessions	200	91.2	8.8	0.0	0.0

*Includes those employed full-time or part-time, postdoctoral appointees, and those seeking employment.

NOTE: Regions by state are as follows: New England (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont); Middle Atlantic (New Jersey, New York, Pennsylvania); East North Central (Illinois, Indiana, Michigan, Ohio, Wisconsin); West North Central (Iowa, Kansas, Minnesota, Missouri, North Dakota, Nebraska, South Dakota); South Atlantic (Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia); East South Central (Kentucky, Alabama, Mississippi, Tennessee); West South Central (Arkansas, Louisiana, Oklahoma, Texas); Mountain (Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, Wyoming); and Pacific (Alaska, California, Hawaii, Oregon, Washington).

(86.4 percent), the highest rate of part-time employment (10.4 percent), and the highest unemployment rate (2.8 percent). In view of this rather somber employment picture, it is surprising to note that the size of the Ph.D. labor force in the Pacific region has increased by 600 since 1983, or 11 percent of the total increase for all regions. In the West North Central region, which had the highest percentage employed full-time and the lowest percentage seeking employment, the labor force increased by only 100, or 1.9 percent of the total increase.

Type of Employer by Field of Doctorate

In 1985, approximately 81,600 of the 90,600 humanities Ph.D.s in the United States were employed in either full-time or part-time jobs. Table 9 shows that overall, 82.3 percent of these employed Ph.D.s were working in educational institutions (4-year college, university, or medical school; 2-year college; elementary/secondary school). This percentage has been declining steadily since 1979, when 86.6 percent of the humanities Ph.Ds indicated that they were employed by educational institutions. This decline is evident not only for the total group, but also within the various humanities fields.

Conversely, the percentage of Ph.D. humanists working in business/industry (the second most frequent employer of humanities Ph.D.s overall) has increased steadily from 5.6 percent in 1979 to 8.7 percent in 1985. For most humanities fields, the percentage of Ph.D.s employed in business/industry has increased over the years, with the fields of speech/theater, music, philosophy, and "other humanities" reporting approximately 10 percent of their Ph.D.s so employed in 1985.

While only 2.4 percent of all humanities doctorates reported that they were employed by the federal government in 1985, the percentage is more than twice as high for history Ph.D.s (5.9 percent for "other history" and 5.5 percent for American history). In fact, government employment on all levels (federal, state, and local) attracted 8.7 percent of the American history Ph.D.s and 8.3 percent of the "other history" Ph.D.s, thus making "government" the second most frequent employer for historians.

Art history Ph.D.s and humanists in the "other humanities" category frequently accepted employment with nonprofit organizations other than educational institutions (9.9 percent and 8.8 percent, respectively). In fact, nonprofit organizations were the second most frequently reported employer for art historians.

Employers of Recent Ph.D.s

In 1985, 76.2 percent of the 1979-1984 Ph.D.s were employed in educational institutions (Table 10). In comparison with all humanities Ph.D.s, the recent doctorates were far less likely to be working in 4-year colleges/universities/medical schools (65.7 percent versus 74.3 percent for the total group) and more likely to be employed either by 2-year colleges and elementary and secondary schools (10.5 percent compared to 8.0 percent for the total group) or by business/industry (11.6 percent compared to 8.7 percent for the total group).

As was true for the 1942-1984 Ph.D. cohorts, government (federal, state, and local) employed large percentages of recent Ph.D. historians (16.0 percent of American history Ph.D.s and 14.5 percent of "other history" Ph.D.s), and other nonprofit organizations were again the second most frequent employer of recent graduates with art history degrees (14.1 percent).

TABLE 9 Type of Employer of Humanities Ph.D.s (1942-1984 Graduates), by Field of Doctorate, 1985 (in percent)

Type of Employer	All Fields	Field of Doctorate: Amer History	"Other History"	Art History	Music	Speech/ Theater	Phil-osophy	English/ Amer Lang & Lit	Clas-sical Lang & Lit	Modern Lang & Lit	"Other Human-ities"
Employed Population*(N)	81,600	8,000	11,400	2,300	6,100	3,400	6,600	21,200	1,700	14,100	6,800
Educational Institution	82.3	79.2	79.3	78.2	81.2	84.5	83.2	85.6	83.5	85.9	73.5
4-Yr Coll/Univ/Med Sch	**74.3**	**69.4**	**70.9**	**77.1**	**72.8**	**75.6**	**77.9**	**76.2**	**79.1**	**78.3**	**66.5**
2-Year College	**5.1**	**6.2**	**5.8**	**0.4**	**5.2**	**6.5**	**3.7**	**6.4**	**0.5**	**3.4**	**5.3**
Elem/Secondary School	**2.9**	**3.5**	**2.6**	**0.7**	**3.2**	**2.4**	**1.6**	**3.0**	**3.9**	**4.2**	**1.7**
Business/Industry**	8.7	5.0	7.0	7.4	10.6	10.7	10.0	9.8	6.4	8.3	10.5
U.S. Government	2.4	5.5	5.9	1.9	0.6	0.1	1.3	0.8	1.2	2.1	2.9
State/Local Government	1.7	3.2	2.4	2.1	0.5	1.3	1.4	1.3	1.5	1.0	3.3
Non-Profit Organization	4.3	6.7	5.4	9.9	5.9	3.0	2.8	2.3	6.7	2.1	8.8
No Report	0.2	0.1	0.0	0.4	0.3	0.1	0.3	0.0	0.4	0.1	0.6

*Includes those employed full-time or part-time.
**Includes self-employed.

NOTE: Percentages for those reporting "other" types of employers are not included in this table; therefore, totals may not add to 100 percent.

TABLE 10 Type of Employer of Humanities Ph.D.s (1979-1984 Graduates), by Field of Doctorate, 1985 (in percent)

Type of Employer	All Fields	Field of Doctorate: Amer History	"Other History"	Art History	Music	Speech/ Theater	Phil-osophy	English/ Amer Lang & Lit	Clas-sical Lang & Lit	Modern Lang & Lit	"Other Human-ities"
Employed Population*(N)	17,700	1,300	1,900	700	2,100	700	1,300	3,900	300	3,100	2,400
Educational Institution	76.2	67.3	66.1	73.4	76.5	79.8	82.1	82.6	80.3	82.1	66.6
4-Yr Coll/Univ/Med Sch	65.7	52.4	58.6	71.4	66.2	63.9	76.2	66.0	75.0	73.6	60.0
2-Year College	6.4	6.1	1.3	0.0	5.3	12.4	4.9	11.	0.0	3.7	5.5
Elementary/Secondary School	4.1	8.8	4.4	1.9	4.8	3.5	1.0	4.7	5.3	4.8	1.2
Business/Industry**	11.6	9.7	12.7	6.4	13.3	15.7	10.0	11.5	11.0	11.0	12.5
U.S. Government	3.3	9.9	8.2	1.8	0.7	0.0	1.2	1.4	4.2	2.3	4.9
State/Local Government	2.4	6.1	6.3	3.0	1.2	0.0	2.5	1.5	0.0	1.1	1.8
Non-Profit Organization	5.5	7.1	6.6	14.1	5.8	4.1	0.6	2.0	4.5	3.0	13.1
No Report	0.1	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.2	0.3

*Includes those employed full-time or part-time.
**Includes self-employed.

NOTE: Percentages for those reporting "other" types of employers are not included in this table; therefore, totals may not add to 100 percent.

Primary Work Activity by Field of Doctorate

As seen in Table 11, teaching and management/administration were most frequently reported as the primary work activity of humanities Ph.D.s. Teaching and management/ administration were also the most frequently reported primary work activities of humanities Ph.D.s in previous survey years; however, since 1981 there has been a decline in the percentage of Ph.D.s engaged primarily in teaching (69.7 percent in 1981 to 66.3 percent in 1983 to 63.5 percent in 1985) and an increase in the percent of humanists engaged primarily in management/administrative work (11.0 percent in 1981 to 11.4 percent in 1983 to 12.9 percent in 1985).

By field, variations in the type of work were reported by the humanities Ph.D.s. Teaching was reported as the primary work activity by 68.4 percent of the 14,100 Ph.D.s with degrees in modern languages and literature, but by only 57.8 percent of the Ph.D.s with degrees in "other history." As pointed out earlier, the relatively high percentage of history doctorates employed in government positions may help to explain the more than 16 percent reporting management/administration as their primary activity. It is also worth noting the trend, for the past several surveys, for history Ph.D.s to have teaching as their primary activity less frequently. Whether this is the result of fewer history teaching jobs or of an ever-increasing demand for history Ph.D.s in managerial jobs is difficult to say. Nonetheless, less than 60 percent of the history Ph.D.s (American and "other history" combined) reported that they were engaged primarily in teaching in 1985, a decline from 1983 and 1981 (61.6 percent and 64.5 percent, respectively).

As was true in previous surveys, several work activities are peculiar to specific fields. Curatorial work was reported as the primary work activity by 7.0 percent of art history Ph.D.s (compared to 0.3 percent of all humanities Ph.D.s), and performing arts was reported by 9.2 percent of music Ph.D.s (compared to 1.0 percent of the total). The percentage of philosophy Ph.D.s reporting research and development as their primary activity was almost twice the percentage for all humanities Ph.D.s combined (8.6 percent compared to 4.9 percent).

Primary Work Activity of Recent Ph.D.s

The humanities Ph.D.s who graduated between 1979 and 1984 had a pattern of work activities similar to that of the total (Table 12), with 62.2 percent engaged primarily in teaching and 8.8 percent in management/administration. There was, however, a tremendous variation across fields. For example, 71.0 percent of the recent music Ph.D.s and 70.7 percent of the recent modern languages and literature Ph.D.s reported that they were engaged primarily in teaching in 1985, while the percentage for the recent "other history" Ph.D.s was only 48.0.

Several work activities within fields show a heavy concentration of recent graduates. Over 14 percent of the recent "other history" Ph.D.s were engaged primarily in research and development. This represents approximately one-third of the total of "other history" Ph.D.s with research and development as their primary activity. Of the 1979-1984 American history Ph.D.s, 17.4 percent reported that they were engaged primarily in writing/editing work. This represents almost 40 percent of the total of American history Ph.D.s engaged primarily in this area of work. Finally, 14.0 percent of the recent graduates in art history were engaged primarily in curatorial work, which represents over 60 percent of the total of Ph.D.s in art history who work primarily in this area.

TABLE 11 Primary Work Activity of Humanities Ph.D.s (1942-1984 Graduates), by Field of Doctorate, 1985 (in percent)

Primary Work Activity	All Fields	Field of Doctorate: Amer History	"Other History"	Art History	Music	Speech/ Theater	Phil-osophy	English/ Amer Lang & Lit	Clas-sical Lang & Lit	Modern Lang & Lit	"Other Human-ities"
Employed Population*(N)	81,600	8,000	11,400	2,300	6,100	3,400	6,600	21,200	1,700	14,100	6,800
Teaching	63.5	60.8	57.8	61.9	65.3	65.8	61.8	66.9	64.1	68.4	55.1
Management/ Administration	12.9	16.1	16.5	10.0	10.5	13.9	11.6	12.7	9.6	10.0	14.2
Research/Development	4.9	6.0	7.5	4.9	3.7	1.2	8.6	1.6	7.2	5.8	7.0
Consulting/ Professional Services	3.8	4.3	3.5	2.6	2.2	3.8	4.7	3.7	3.9	3.0	6.2
Writing/Editing	5.5	7.3	4.6	5.0	2.1	4.6	4.7	7.4	6.3	4.3	6.4
Performing Arts	1.0	0.0	0.0	0.6	9.2	4.5	0.2	0.0	0.2	0.1	0.2
Other Activities	5.0	4.7	6.6	10.7	4.0	3.1	4.6	3.8	5.3	4.3	7.9
Archival Work	0.4	0.5	1.3	0.3	0.0	0.0	0.7	0.2	0.4	0.2	0.7
Curatorial Work	0.3	0.0	0.3	7.0	0.0	0.1	0.0	0.0	0.3	0.1	0.8
No Report	3.4	0.8	3.4	4.3	3.0	2.9	3.8	3.9	3.4	4.1	2.9

*Includes those employed full-time or part-time.

TABLE 12 Primary Work Activity of Humanities Ph.D.s (1979-1984 Graduates), by Field of Doctorate, 1985 (in percent)

Primary Work Activity	All Fields	Field of Doctorate: Amer History	"Other History"	Art History	Music	Speech/ Theater	Phil-osophy	English/ Amer Lang & Lit	Clas-sical Lang & Lit	Modern Lang & Lit	"Other Human-ities"
Employed Population*(N)	17,700	1,300	1,900	700	2,100	700	1,300	3,900	300	3,100	2,400
Teaching	62.2	54.2	48.0	57.0	71.0	57.6	65.1	68.6	64.8	70.7	49.8
Management/ Administration	8.8	7.7	11.5	6.7	5.0	13.2	7.3	9.9	6.8	6.8	11.5
Research/Development	7.0	11.2	14.2	6.0	5.8	2.0	11.2	1.2	3.4	4.4	12.6
Consulting/ Professional Services	2.7	0.4	0.9	0.7	1.4	3.2	0.0	3.7	1.9	3.5	5.5
Writing/Editing	7.4	17.4	7.2	6.5	0.2	10.4	6.6	11.1	13.3	3.6	6.1
Performing Arts	1.5	0.0	0.0	0.0	9.9	7.6	0.0	0.0	1.1	0.3	0.0
Other Activities	7.6	9.0	14.9	16.2	5.0	3.2	5.6	3.5	8.7	6.5	11.4
Archival Work	**0.9**	**0.4**	**4.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.6**	**1.8**
Curatorial Work	**0.7**	**0.0**	**0.0**	**14.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**1.3**
No Report	2.8	0.0	3.2	6.8	1.5	2.8	4.2	2.1	0.0	4.2	3.0

*Includes those employed full-time or part-time.

MEDIAN ANNUAL SALARY

By Field of Doctorate, Gender, and Years Since Doctorate

The median annual salary of full-time employed humanities Ph.D.s in 1985 was $34,600 (as shown in Table 13), a 12.7 percent increase from the 1983 median salary of $30,700. This latest percentage represents a downturn in the growth rate of humanities salaries: prior to 1985, the percentage increase had been getting larger every two years (8.5 percent from 1977 to 1979, 14.8 percent from 1979 to 1981, and 16.3 percent from 1981 to 1983).

By field, Ph.D.s with degrees in American history had the highest median salary, $37,300. On the other hand, Ph.D.s in the "other humanities" field had the lowest median salary, $31,500, followed closely by Ph.D.s in music ($32,400) and Ph.D.s in classical languages and literature ($32,600). Ph.D.s in speech/theater, who had been holding the highest median salaries for the previous four survey years, dropped behind Ph.D.s both in American history and "other history" and in philosophy.

For all fields combined, men had a median salary of $35,800 compared to $30,700 for women, a differential of over $5,000. Across all humanities fields, the median salaries of the men were consistently higher than those of the women in the same fields (Figure 6). Although both women and men in the field of American history earned the highest median salaries, the salaries of female Ph.D.s were substantially lower than those of the male Ph.D.s ($32,900 for females compared to $38,100 for males, a $5,200 difference). The largest difference across the humanities fields by sex occurred in philosophy, in which male Ph.D.s earned a median salary of $36,500 compared to $30,800 for women, a $5,700 gap. The smallest salary differences occurred in the fields of "other humanities" ($2,700 difference) and classical languages and literature ($2,900 difference).

In general, the median annual salaries of men and women became more disparate with the increase in the number of years since the Ph.D. was awarded. For all fields combined, the salary differential between men and women within five years of receipt of Ph.D. was only $700, and in two fields the median salary for women was higher than that for men ("other history": $26,500 for women and $25,700 for men; and English and American languages and literature: $25,800 for women and $25,300 for men). In art history and speech/theater, on the other hand, men within five years of receipt of Ph.D. made considerably more than their female counterparts (approximately $28,000 for men and approximately $24,000 for women).

As the number of years since receipt of the doctorate increases, so does the gap between salaries of men and women: a differential of $1,300 for Ph.D.s receiving their doctorates 11-15 years earlier and $4,600 for those having their degrees for 21-30 years. The greatest difference in median salaries was for those Ph.D.s whose degrees were earned over 30 years ago. However, because of the relatively small number in this cohort, median salaries could be reported by field and sex only for modern languages and literature, where men received the highest median salaries of all humanities fields, $52,500.

TABLE 13 Median Annual Salaries of Humanities Ph.D.s Employed Full-Time, by Gender, Years Since Ph.D., and Field of Ph.D., 1985 (in thousands of dollars)

Gender and Years Since Ph.D.	All Fields	Field of Doctorate: Amer History	"Other History"	Art History	Music	Speech/ Theater	Phil-osophy	English/ Amer Lang & Lit	Clas-sical Lang & Lit	Modern Lang & Lit	"Other Human-ities"
Total	$34.6	$37.3	$36.4	$33.3	$32.4	$35.6	$36.1	$34.1	$32.6	$33.6	$31.5
5 or Less	25.7	26.0	26.1	25.7	25.8	27.3	25.9	25.6	24.7	24.8	26.3
6-10	30.0	31.4	30.9	29.6	30.3	32.1	30.5	29.3	29.1	28.9	29.9
11-15	35.5	37.3	36.3	38.4	37.4	36.1	35.4	34.5	33.2	35.1	33.7
16-20	39.8	40.7	39.7	42.3	40.3	39.7	39.9	40.0	36.6	37.7	40.2
21-30	45.1	48.1	48.4	48.7	40.7	42.3	47.0	41.4	38.6	45.4	45.2
Over 30	49.5						50.9	48.0		51.5	
Male, Total	$35.8	$38.1	$36.9	$35.9	$33.5	$36.4	$36.5	$35.2	33.6	$35.4	$32.6
5 or Less	26.0	24.0	25.7	28.0	26.1	28.6	26.6	25.3	25.4	25.8	26.6
6-10	30.5	32.6	31.2	28.9	30.4	33.2	30.6	29.9	29.5	30.2	29.6
11-15	35.8	37.8	36.2	39.5	38.1	36.3	35.4	34.5	33.4	35.6	33.6
16-20	40.3	40.6	39.8	42.4	40.8	40.1	40.6	40.7	36.8	39.2	40.2
21-30	45.5	48.0	48.6	51.5	40.7	43.2	47.2	41.4	38.8	48.5	45.7
Over 30	50.7									52.5	
Female, Total	$30.7	$32.9	$32.2	31.1	$28.2	$30.9	$30.8	$31.2	$30.7	$29.9	$29.9
5 or Less	25.3		26.5	24.9	24.4	24.2	24.2	25.8	23.2	24.0	25.8
6-10	28.9	28.1	30.7	30.2	29.8	28.5	29.6	29.0	27.4	26.5	30.1
11-15	34.5	34.7	36.8	37.4	35.2	34.6	34.0	34.5	32.1	33.7	34.0
16-20	36.8		36.3	39.0	36.3		34.9	36.5		36.6	40.1
21-30	40.9		45.1		37.6		35.5	40.9		42.3	41.5
Over 30	41.8										

NOTE: Median salaries were computed only for Ph.D.s employed full-time, excluding those in the U.S. military. Academic salaries were multiplied by 11/9 to adjust for a full-time scale. Medians were not provided for cells with less than 20 cases reporting salary.

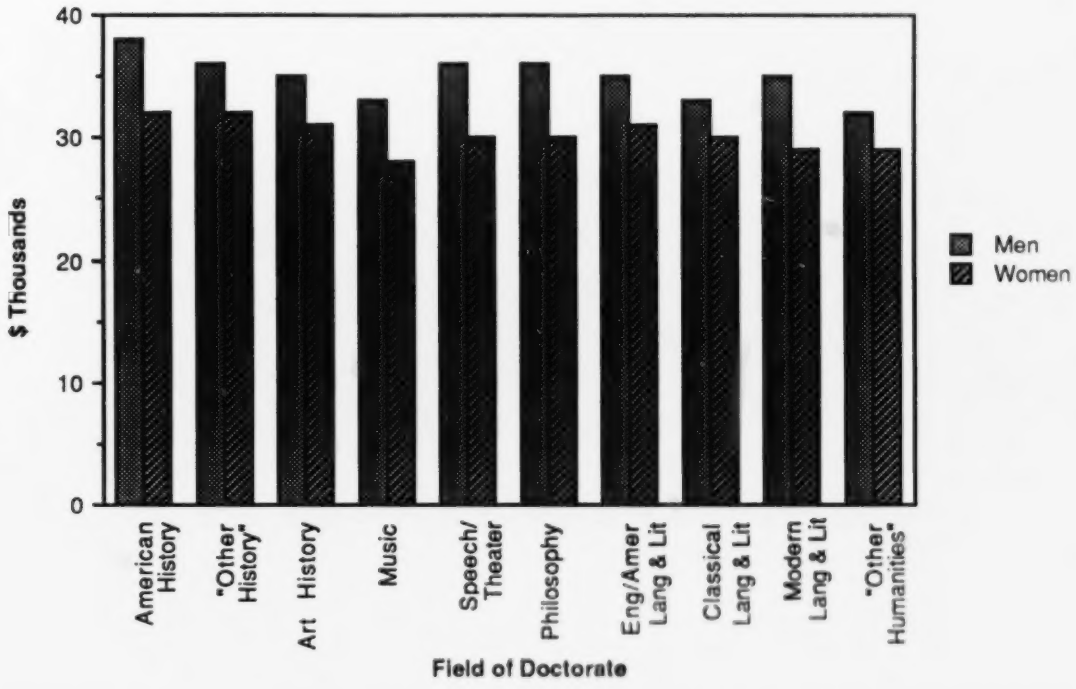


Figure 6 Median annual salaries of humanities Ph.D.s employed full-time, by field of doctorate and gender, 1985.

By Field of Doctorate, Gender, and Type of Employer

The median annual salaries of humanities Ph.D.s by type of employer varied considerably. Overall, 4-year colleges/universities/medical schools and 2-year colleges provided the highest salaries for humanities doctorates, $35,100 and $35,000, respectively (Table 14). The lowest median salaries were earned by humanities Ph.D.s employed by elementary/secondary schools ($30,000) and business/industry, including self-employed individuals ($30,800). A comparison of salaries reported in 1983 and in 1985 shows that government-employed humanists experienced the greatest increase (from $28,600 to $33,500, a $4,900 increase). Increases since 1983 for those employed by educational institutions and by business/industry were $3,900 and $3,000, respectively.

By field, music and American history Ph.D.s working at 2-year colleges had the highest median salaries ($40,300 and $39,500, respectively). Music Ph.D.s working in business/industry reported the lowest median salary ($25,500).

As reported earlier, men consistently earned higher median salaries than women across all the humanities fields. Analysis of the salary data by type of employer shows some even greater disparities between the salaries for men and women in certain fields. For example, men with degrees in modern languages and literature and employed in government earned $9,300 more than their female counterparts, and men with degrees in music and employed by educational institutions earned $6,100 more than the women. On the other hand, females with degrees in "other humanities" and employed in business/industry earned $9,600 more than their male counterparts. The lowest median salaries for both women and men were for music Ph.D.s employed by business/industry ($19,600 for women and $25,700 for men).

TABLE 14 Median Annual Salaries of Humanities Ph.D.s Employed Full-Time, by Gender, Type of Employer, and Field of Doctorate, 1985 (in thousands of dollars)

Gender and Type of Employer	All Fields	Field of Doctorate: Amer History	"Other History"	Art History	Music	Speech/ Theater	Phil-osophy	English/ Amer Lang & Lit	Clas-sical Lang & Lit	Modern Lang & Lit	"Other Human-ities"
Total	$34.6	$37.3	$36.4	$33.3	$32.4	$35.6	$36.1	$34.1	$32.6	$33.6	$31.5
Educational Inst.	34.9	37.4	37.0	32.8	33.5	35.8	36.2	34.3	33.9	33.8	32.1
4 Yr. Coll/Univ/ Med School	35.1	37.4	37.4	32.9	33.5	36.1	36.2	34.6	34.2	33.8	31.8
2-Year College	35.0	39.5	33.7		40.3	32.2	36.0	32.8		36.2	37.0
Elem/Sec. Sch.	30.0							31.1		30.2	30.5
Business/Industry*	30.8		30.2	36.2	25.5	35.3	35.1	32.2	29.0	30.3	33.3
Government	33.5	32.8	35.0				39.1	33.2		34.5	30.5
Male, Total	$35.8	$38.1	$36.9	$35.9	$33.5	$36.4	$36.5	$35.2	$33.6	$35.4	$32.6
Educational Inst.	36.1	37.9	37.8	34.9	34.5	36.4	36.6	35.4	34.5	35.4	33.7
4 Yr. Coll/Univ/ Med School	36.3	37.9	38.5	35.1	34.3	36.5	36.7	35.8	34.6	35.3	33.5
2-Year College	35.4						36.4	32.8		36.2	
Elem/Sec School	30.6									34.2	
Business/Industry*	31.2				25.7		35.2	35.6		30.8	30.9
Government	33.9		35.1				39.3			38.3	
Female, Total	$30.7	$32.9	$32.2	$31.1	$28.2	$30.9	$30.8	$31.2	$30.7	$29.9	$29.9
Educational Inst.	30.9	34.1	32.0	31.4	28.6	32.1	30.7	31.2	31.1	30.5	29.6
4 Yr. Coll/Univ/ Med School	30.9	32.7	31.8	31.4	28.6	33.0	30.8	31.3	31.4	30.5	29.5
2-Year College	33.6							33.0		36.1	
Elem/Sec School	28.2									25.0	
Business/Industry*	30.4		36.0		19.6		32.2	30.5		28.4	40.5
Government	32.7									29.0	

*Includes self-employed.

NOTE: Median salaries were computed only for Ph.D.s employed full-time, excluding those in the U.S. military. Academic salaries were multiplied by 11/9 to adjust for a full-time scale. Medians were not provided for cells with less than 20 cases reporting salary.

ACADEMIC EMPLOYMENT

As noted earlier, academe continues to be the most frequent employer of individuals with doctoral degrees in the humanities. Table 15 provides a time-series view of academically employed Ph.D. humanists since 1977. Although the numbers of Ph.D. humanists who were academically employed has increased since 1977, the percentage holding the academic ranks of professor or associate professor declined for the first time in 1985, by 2.2 and 2.0 percent, respectively. However, before this can be referred to as a downward trend, it is necessary to examine additional data for subsequent years.

The most noteworthy increase occurred for the faculty position labeled "other." However, because of the differences in definition of what constitutes "other" faculty over the years, the reader is urged to compare 1981 data to 1985 data, when "other" faculty (administrator and other faculty) were similarly defined. When this is done, the reader will note an increase from 5.1 percent to 7.8 percent in the "other" faculty grouping.

TABLE 15 Academic Position of Humanities Ph.D.s, 1977-1985

Academic Position	1977	1979	1981	1983	1985
Total Reporting Position (N)	49,700	53,200	58,100	59,000	64,300
Faculty	95.6	95.9	96.1	95.8	97.2
Professor	36.7	36.7	37.2	42.0	39.8
Associate Professor	30.5	29.9	30.3	31.5	29.5
Assistant Professor	25.7	22.9	20.8	16.9	16.4
Instructor	2.7	2.9	2.6	2.3	3.8
Other	NA*	3.4	5.1	2.8	7.8
Nonfaculty	3.6	3.3	3.1	3.1	2.5
Postdoctoral Appointment	0.8	0.7	0.8	1.4	0.3

*Not an option on the 1977 survey form. In the 1979 and 1983 surveys this category included "other faculty," while in 1981 and 1985 it included "administrators" as well as "other faculty."

Academic Position by Cohort, Field of Ph.D., and Gender

Table 16 presents data on the percentage distribution of Ph.D.s who were working in U.S. colleges and universities in 1985, both for the total group and for the more recent Ph.D.s (1979-1984), by field of Ph.D., sex, and academic position.[13]

Overall, 45.3 percent of the men had achieved the rank of full professor compared to 23.8 percent of the women. By field of Ph.D. groupings, men were consistently more likely to be full professors than were women in the same field grouping. For assistant professor rank and instructor positions, the reverse was true. For all fields combined, an estimated 12.9 percent of the men held the rank of assistant professor compared to 25.1 percent of the women, and 2.8 percent of the men were instructors compared to 6.3 percent of the women. Similarly, for all field groupings except English/American languages and literature, higher percentages of 1979-1984 female Ph.D.s held assistant professor positions than did their male counterparts. Within the ranks of associate and full professor, however, the female share was consistently lower than the male share, both for the more recent Ph.D.s (again, except for those in English/American languages and literature) and for the total group.

Over half (52.5 percent) of the 12,600 male history Ph.D.s employed in academe held the rank of full professor; only 29.5 percent of the 2,200 females in the field held a similar rank. In spite of this large gender gap, it should also be noted that no other field had such a high representation of women in the full professor rank.

While for the total group women were more likely than men to hold nonfaculty positions and postdoctoral appointments, this did not hold true for the more recent graduates, of whom 6.5 percent of the men and 5.7 percent of the women were in nonfaculty jobs. However, there were differences in this particular male-female comparison across fields. For example, 14.7 percent of the male history Ph.D.s were employed in nonfaculty jobs in 1985 compared to 11.8 percent of the females.

Tenure Status

The number of Ph.D. humanists with tenure has increased since 1983 for both men (by approximately 280) and women (by approximately 1,055) due to an increase in the total number academically employed. The percentage with tenure, however, has declined since 1983. On the other hand, both the numbers and the percentages of male and female humanities Ph.D.s in nontenured academic jobs have increased since 1983 (21.4 percent for men in 1985 compared to 17.9 percent in 1983, and 44.9 percent for women in 1985 compared to 39.4 percent in 1983). As can be seen in Figure 7, women continued to be both in nontenured jobs and in nontenure track jobs more frequently than men (24.1 percent for women compared to 9.5 percent for men).

Table 17 gives information on the tenure status of academically employed humanities Ph.D.s by age and broad field groupings. For all but one field grouping, male humanists continued to be more likely to have tenure than women in the same age category. The exception was in history: in the "age 35 and under" category, 9.6 percent of the 200 female history Ph.D.s reported that they were in tenured jobs compared to 4.2 percent of their 600 male counterparts.

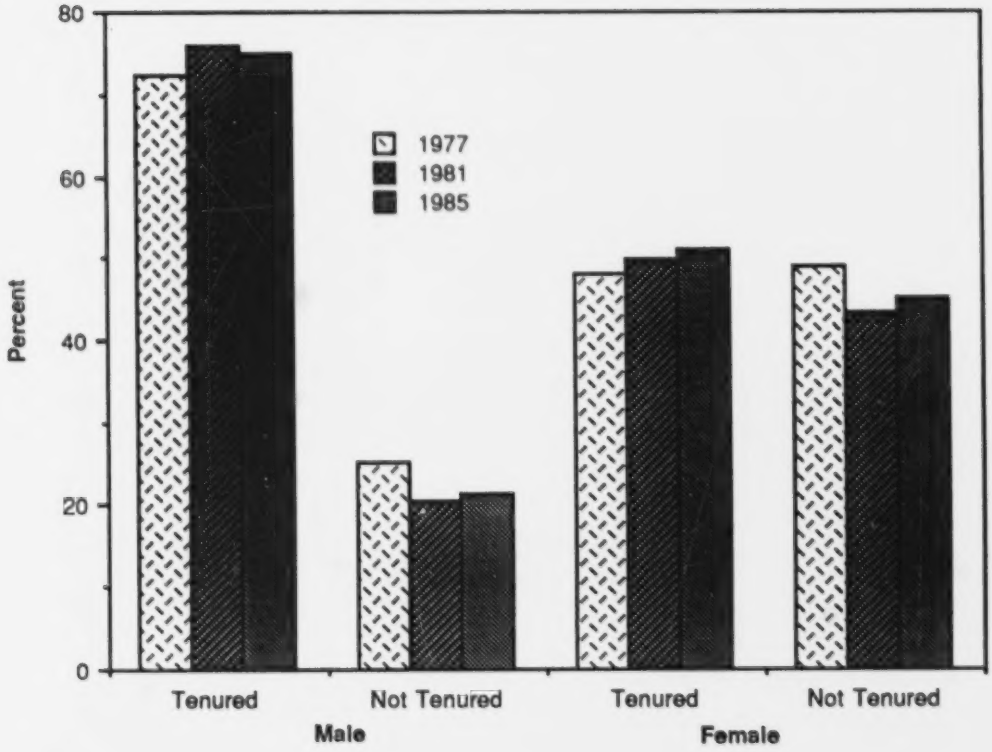
[13]Ph.D.s who did not report their academic position were excluded from the percentage base for longitudinal comparison.

TABLE 16 Academic Position of Humanities Ph.D.s, by Year of Doctorate, Field of Doctorate, and Gender, 1985 (in percent)

Year of Ph.D. and Academic Position	Field of Doctorate									
	All Fields		Eng/Amer Lang and Lit		History		Other Lang and Lit		Other Humanities	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total, 1942-1984 Ph.D.s (N)	47,000	17,900	11,700	5,800	12,600	2,200	7,900	5,000	14,800	4,900
Faculty	97.2	93.6	97.7	92.9	96.9	91.0	97.7	95.9	96.8	93.3
Professor	45.3	23.8	45.5	27.5	52.5	29.5	39.0	20.6	42.3	20.0
Associate Professor	29.7	27.6	30.3	26.9	26.4	22.7	35.5	30.6	29.1	27.7
Assistant Professor	12.9	25.1	11.2	18.5	7.4	22.8	15.3	29.0	17.5	29.9
Instructor	2.8	6.3	2.9	6.3	3.1	6.2	2.1	6.6	2.7	6.2
Other (inclu. Admin.)	6.6	10.8	7.8	13.7	7.5	9.8	5.7	9.2	5.2	9.5
Nonfaculty	2.2	4.5	1.9	5.5	2.6	6.8	1.9	3.0	2.4	3.9
Teaching Staff*	0.5	1.0	1.0	1.3	0.0	0.8	0.5	0.9	0.7	1.1
Research Staff**	0.6	0.7	0.3	0.3	1.1	0.9	0.4	0.7	0.7	0.9
Other	1.1	2.8	0.7	3.9	1.5	5.1	1.0	1.4	1.0	1.9
Postdoctoral Appointment	0.2	0.6	0.1	0.2	0.3	0.1	0.4	0.4	0.0	1.4
No Report	0.4	1.3	0.4	1.4	0.2	2.1	0.0	0.7	0.7	1.4
Total, 1979-1984 Ph.D.s (N)	7,200	5,600	1,500	1,600	1,400	600	1,100	1,500	3,200	1,900
Faculty	91.7	92.1	93.7	90.8	83.8	87.9	95.3	96.4	92.8	91.2
Professor	6.2	3.2	2.0	4.8	7.0	3.3	3.8	2.2	8.7	2.7
Associate Professor	16.6	12.3	13.5	17.6	9.1	7.8	17.2	7.3	21.0	13.0
Assistant Professor	53.7	53.9	56.7	41.1	45.3	53.7	59.6	64.3	53.8	56.5
Instructor	8.3	9.2	14.9	6.9	11.3	13.3	5.4	10.0	4.9	9.2
Other	6.9	13.5	6.6	20.4	11.0	9.7	9.4	12.6	4.3	9.8
Nonfaculty	6.5	5.7	3.8	7.2	14.7	11.8	3.2	2.4	5.5	4.9
Teaching Staff*	1.2	1.6	3.8	3.3	0.0	0.0	1.1	0.5	0.6	1.6
Research Staff**	2.5	0.6	0.0	0.0	6.1	0.0	1.1	1.0	2.7	0.8
Other	2.8	3.5	0.0	3.9	8.6	11.8	1.0	0.8	2.2	2.5
Postdoctoral Appointment	0.5	1.1	0.5	0.2	0.7	0.0	1.5	0.5	0.1	2.5
No Report	1.3	1.2	2.0	1.8	0.9	0.3	0.0	0.6	1.6	1.4

*Includes nonfaculty staff members whose primary work activity is teaching.
**Includes nonfaculty staff members whose primary work activity is basic research, applied research, development, or design.

NOTE: Other Languages & Literature = Classical Languages and Literature and Modern Languages and Literature. Other Humanities = Art History, Music, Speech/Theater, Philosophy, and "Other Humanities. "Ph.D.s who did not report their academic position were excluded from the percentage base for longitudinal comparison.



NOTE: Those not reporting tenure status are not included in this figure; therefore the columns may not add to 100 percent.

Figure 7 Tenure status of academically employed humanities Ph.D.s, by gender, 1977, 1981, 1985 (in percent).

TABLE 17 Tenure Status of Academically Employed Humanities Ph.D.s, by Field of Doctorate, Age, and Gender, 1985 (in percent)

Age and Tenure	Field of Doctorate									
	All Fields		Eng/Amer Lang and Lit		History		Other Lang and Lit		Other Humanities	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total Employed (N)	47,000	17,900	11,700	5,800	12,600	2,200	7,900	5,000	14,800	4,900
Tenured	75.0	51.0	78.1	53.9	76.0	51.8	77.3	51.6	70.6	46.7
Not Tenured	21.4	44.9	18.1	42.1	20.6	44.7	21.1	45.3	24.8	47.9
Tenure Track	11.3	20.0	9.2	16.2	8.4	16.9	12.3	22.5	15.1	23.6
Non-Tenure Track	9.5	24.1	8.4	25.1	12.1	27.2	8.2	22.2	9.0	23.5
Age 35 and Under (N)	3,300	2,000	900	400	600	200	500	600	1,300	800
Tenured	13.8	6.2	16.7	0.9	4.2	9.6	13.4	10.9	16.0	4.6
Not Tenured	83.8	90.4	80.5	92.9	95.8	90.4	85.6	87.4	80.3	91.3
Tenure Track	55.5	57.1	61.9	44.9	36.3	57.4	53.0	56.7	60.1	64.4
Non-Tenure Track	27.9	32.8	18.6	48.0	59.5	32.9	29.7	29.4	20.3	26.3
Age 36 to 45 (N)	16,700	7,500	4,300	2,200	4,200	900	2,800	2,200	5,400	2,200
Tenured	67.1	46.8	79.7	54.9	64.8	42.1	68.6	43.0	57.8	44.4
Not Tenured	29.3	48.9	17.4	40.8	31.3	53.0	29.7	55.0	37.0	49.3
Tenure Track	16.6	22.0	10.7	17.4	14.3	17.4	18.4	28.0	22.2	22.7
Non-Tenure Track	12.0	26.2	6.7	23.2	16.7	34.1	11.3	26.1	13.0	26.0
Age 46 and Older (N)	27,000	8,300	6,400	3,200	7,900	1,000	4,600	2,200	8,100	1,900
Tenured	87.5	65.7	85.8	60.8	86.9	69.9	89.7	70.4	88.3	65.9
Not Tenured	8.8	30.2	9.6	35.8	9.6	27.0	8.9	25.0	7.4	29.0
Tenure Track	2.6	9.2	0.7	11.2	3.3	6.9	4.1	8.3	2.8	8.3
Non-Tenure Track	5.8	20.2	8.0	23.2	6.3	20.1	4.0	16.5	4.4	19.7

NOTE: Other Languages & Literature = Classical Languages and Literature and Modern Languages and Literature. Other Humanities = Art History, Music, Speech/Theater, Philosophy, and "Other Humanities." Percentages for those not reporting tenure status are not included in this table; therefore totals may not add to 100 percent.

APPENDIX A

1985 SURVEY OF DOCTORATE RECIPIENTS QUESTIONNAIRE

EMPLOYMENT SPECIALTIES LIST

1985 ABBREVIATED QUESTIONNAIRE

OMB No. 3145-0020

1985 SURVEY OF DOCTORATE RECIPIENTS

CONDUCTED BY THE NATIONAL RESEARCH COUNCIL WITH THE SUPPORT OF THE NATIONAL SCIENCE FOUNDATION, THE NATIONAL ENDOWMENT FOR THE HUMANITIES, THE NATIONAL INSTITUTES OF HEALTH, AND THE DEPARTMENT OF ENERGY

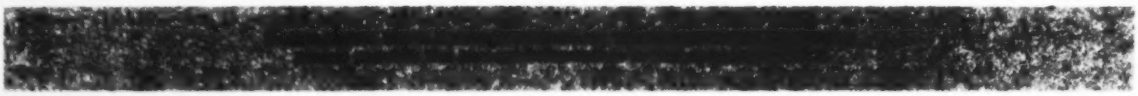
NOTE THIS INFORMATION IS SOLICITED UNDER THE AUTHORITY OF THE NATIONAL SCIENCE FOUNDATION ACT OF 1950, AS AMENDED. ALL INFORMATION YOU PROVIDE WILL BE TREATED AS CONFIDENTIAL, WILL BE SAFEGUARDED IN ACCORDANCE WITH THE PROVISIONS OF THE PRIVACY ACT OF 1974, AND WILL BE USED FOR STATISTICAL PURPOSES ONLY. INFORMATION WILL BE RELEASED ONLY IN THE FORM OF STATISTICAL SUMMARIES OR IN A FORM WHICH DOES NOT IDENTIFY INFORMATION ABOUT ANY PARTICULAR PERSON. YOUR RESPONSE IS ENTIRELY VOLUNTARY AND YOUR FAILURE TO PROVIDE SOME OR ALL OF THE REQUESTED INFORMATION WILL IN NO WAY ADVERSELY AFFECT YOU.

If your name and address are incorrect, please enter correct information below.

_____

_____

_____ (10-11)



1. **Institution/Year of Doctorate** _____ (12-19)

2. **Date of Birth** _____ (20-24)

3. **Marital Status** _____ (25)

4a. **What is your racial background?**

1 ☐ American Indian or Alaskan Native
2 ☐ Asian or Pacific Islander
3 ☐ Black
4 ☐ White (26)

4b. **Is your ethnic heritage Hispanic?**

1 ☐ Yes
2 ☐ No (27)

If YES, is it:

1 ☐ Mexican-American
2 ☐ Puerto Rican
3 ☐ Other Hispanic (28)

5. **Do you have any children living with you who are:**

Under 6 years of age? 1 ☐ Yes How many? _____ (30)
2 ☐ No (29)

Between 6 and 18 years of age? 1 ☐ Yes How many? _____ (32)
2 ☐ No (31)

6. **Are you physically handicapped?**

1 ☐ Yes 2 ☐ No (33)

If Yes, what is the nature of your handicap(s)? (Mark as many as apply)

1 ☐ Visual
2 ☐ Auditory
3 ☐ Ambulatory
4 ☐ Other, specify _____ (34-37)

7. **Citizenship**

1 ☐ U.S. Native Born
2 ☐ U.S. Naturalized
3 ☐ Non-U.S., Immigrant (Perm. Res.)
4 ☐ Non-U.S., Non-Immigrant (Temp. Res.) (38)

IF NON-U.S., specify country of citizenship

_____ (39-40)

8. **Since receiving the doctorate, how many full-time equivalent years of professional work experience have you had?** _____ **Years(s)** (41-42)

9. **What was your employment status (includes postdoctoral appointment*) during February 1985?** ☐ Circle your selection and enter number from below (43)

1. Employed full-time (Skip to #13)
2. Employed part-time
   If you were employed part-time, were you seeking full-time employment?
   A ☐ Yes B ☐ No (44)
3. Postdoctoral appointment*
   If you held a postdoctoral appointment, was it
   A ☐ Full-time (Skip to #13) B ☐ Part-time (45)
4. Unemployed and seeking employment (Skip to #11)
5. Not employed and not seeking employment (Skip to #12)
6. Retired and not employed (Skip to #28)
7. Other, specify _____

*Temporary appointment in academia, industry or government, the primary purpose of which is to provide for continued education or experience in research.

10. If you were employed part-time during FEBRUARY 1985, what was the MOST important reason for being in part-time status?

☐ Enter number from below (46)

1. Part-time employment preferred
2. Full-time position not available
3. Constraints due to family or marital status
4. Other, specify _____

(Skip to #13)

11. If you were unemployed and seeking employment during February 1985, was your job search restricted by:

☐ Enter number from below (47)

1. Geographic location
2. Family responsibilities
3. Need for part-time employment
4. Other, specify _____
5. No restrictions (Skip to #28)

12. If you were not employed and not seeking work during February 1985, what was the most important reason for not seeking work?

☐ Enter number from below (48)

1. Temporarily absent for health or personal reasons
2. Tending to family responsibilities
3. Suitable job not available
4. Other, specify _____

(Skip to #28)

13. Please give the name of your principal employer (company, organization, postdoctoral institution, etc. or, if self employed, write "self") and actual place of employment during FEBRUARY 1985.

_____
Name of Employer (49-56)

_____
City State ZIP (57-65)

14. From the Employment Specialties List on page 4 select and enter both the number and title of the employment specialty most closely related to your principal employment or postdoctoral appointment during FEBRUARY 1985. Write in your specialty if it is not on the list.

_____
Number Title of Employment Specialty (66-68)

15. Which category below best describes the type of your principal employment OR postdoctoral appointment during FEBRUARY 1985?

☐ Enter number from below (69-70)

1. Business or industry (including self-employed)
2. Junior college, 2-year college, technical institute
3. Medical school (including university affiliated hospital or medical center)
4. 4-year college
5. University, other than medical school
6. Elementary or secondary school system
7. Private foundation
8. Hospital or clinic
9. U.S. military service, active duty, or Commissioned Corps, e.g., USPHS, NOAA
10. U.S. government, civilian employee
11. State government
12. Local or other government, specify _____
13. Nonprofit organization, other than those listed above
14. Other, specify _____

16. If you were employed during FEBRUARY 1985 in a speciality field other than your field of Ph.D., what was the MOST important reason for being in that position?

☐ Enter number from below (71)

1. Better pay
2. More attractive career options
3. Preferred specific geographic location
4. Constraints due to family or marital status
5. Position in Ph.D. field not available
6. Promoted into new field
7. Other, specify _____

17. If your doctorate is in a humanities field and you were employed in a non-academic job in FEBRUARY 1985, what was the MOST important reason for your decision to enter the job?

☐ Enter number from below (72)

1. Better pay
2. More attractive career options
3. Preferred specific geographic location
4. Constraints due to family or marital status
5. Academic position not available
6. Other, specify _____

18. If you were employed by an academic institution during FEBRUARY 1985,

A. What was the rank of your position?

☐ Enter number from below (73)

FACULTY:
1. Professor
2. Associate professor
3. Assistant professor
4. Instructor
5. Administrator
6. Other, specify _____ *Title*

NONFACULTY:
7. Teaching staff
8. Research staff
9. Other, specify _____ *Title*

B. What was your tenure status?

1 ☐ Tenured, Year _____ (75-76)
2 ☐ Not Tenured, in tenure-track position
3 ☐ Not Tenured, not in tenure-track position (74)

19. What is your best estimate of the percentage of your professional work time that you devoted to each of the following activities during a typical week in your principal job? (Total should equal 100%)

	%		%
1.	___ Teaching (10)	11.	___ Operations – production, maintenance, construction, installation (30)
2.	___ Basic research (12)	12.	___ Quality control, testing, evaluation (32)
3.	___ Applied research (14)	13.	___ Sales, marketing, purchasing, estimating (34)
4.	___ Development of equipment, products, systems, data (16)	14.	___ Archival work (36)
5.	___ Design (18)	15.	___ Curatorial work (38)
6.	___ Writing, editing (20)	16.	___ Performing arts (40)
7.	___ Professional services to individuals (22)	17.	___ Other, specify _____ (42)
8.	___ Management of R&D (24)		
9.	___ Management of educational/other programs (26)		
10.	___ Consulting (28)		TOTAL = 100%

a. What were your primary and secondary work activities? (Enter number 1-17 from question above) ☐ Primary (44-45) ☐ Secondary (46-47)

20. What was the basic annual salary* associated with your principal professional employment during FEBRUARY 1985? If you were on a postdoctoral appointment (see question 9 for definition), what was your stipend plus allowances?

$_____ per year (48-50)

Check whether salary was for ☐ 9-10 months or ☐ 11-12 months (51)

*Basic salary is your annual salary before deductions for income tax, social security, retirement, etc., but does not include bonuses, overtime, summer teaching, or other payment for professional work.

21a. After receiving your doctorate, did you have to acquire formal training in any of the following areas in order to obtain your present position?

1 ☐ Yes 2 ☐ No (52) **IF YES**, specify below

1. ___ Foreign languages
2. ___ Computer science
3. ___ Management and administration
4. ___ Survey research and statistics
5. Other, specify _____ (53-57)

21b. How long have you been in your present position? _____ Year(s) (58-59)

22. Was any of your work during FEBRUARY 1985 supported or sponsored by U.S. Government funds?

1 ☐ Yes 2 ☐ No 3 ☐ Don't Know (60)

IF YES, which federal agencies or departments were supporting the work?

Enter number(s) from the list of Federal Supporting Agencies on page 4.

_____ (61-72)

23. Listed below are selected topics of national interest. If you devoted a significant proportion of your professional time to any of these problem areas during FEBRUARY 1985, please give the corresponding number of the ONE on which you spent the MOST time. ☐ Enter number from below (73-74)

1. Energy or fuel
2. Health
3. Defense
4. Environ. protection, pollution control
5. Education (other than teaching)
6. Space
7. Crime prevention and control
8. Food and other agricultural products
9. Natural resources, other than fuel or food
10. Community development and services
11. Housing (planning, design, construction)
12. Transportation, communications
13. Cultural life
14. Other area, specify

If you selected energy or fuel in Question #23, please answer the following questions. Otherwise, please skip to #28.

24. What percent of your professional time did you devote to energy or fuel activities during a typical week? percent (75-76)

25. From the list below, give the corresponding number of the ONE energy source that involved the LARGEST proportion of your energy-related work during FEBRUARY 1985. ☐ Enter number from below (77)

1. Coal and coal products
2. Petroleum (including oil shale and tar sands) or natural gas
3. Fission
4. Fusion
5. Hydroenergy
6. Direct solar (including space and water heating, thermal, electric)
7. Indirect solar (winds, tides, biomass, etc.)
8. Geothermal
9. Other, specify _____

26. Please read the following list of energy-related activities and give the corresponding number(s) from the list below of the activity(ies) in which you were engaged during FEBRUARY 1985. Enter number(s) from below

_____ (10-29)

1. Exploration
2. Extraction (gas, oil, mining)
3. Manufacture of energy-related components or products
4. Fuel processing (including refining and enriching)
5. Electric power generation
6. Transportation, transmission, distribution of fuel or energy
7. Energy storage
8. Energy utilization, management
9. Fuel reprocessing or disposal
10. Energy conservation
11. Environmental impact (health, economic, etc.)
12. Education, training
13. Research and development
14. Other, specify _____

27. Please enter the number 1-14 from question #26 that BEST describes the activity in which you spent MOST of your energy-related time. ☐ (30-31)

28. **Thank you for completing this questionnaire. Please return the completed form in the enclosed envelope to the National Research Council, JH630, 2101 Constitution Avenue, Washington, D.C. 20418.**

EMPLOYMENT SPECIALTIES LIST

MATHEMATICAL SCIENCES

000 - Algebra
010 - Analysis & Functional Analysis
020 - Geometry
030 - Logic (see also 834)
040 - Number Theory
052 - Probability
055 - Math. Statistics (see also 544, 670, 725, 727)
060 - Topology
082 - Operations Research (see also 478)
085 - Applied Mathematics
089 - Combinatorics & Finite Mathematics
098 - Mathematics, General
099 - Mathematics, Other*

COMPUTER AND INFORMATION SCIENCES

071 - Theory
072 - Software Systems
073 - Hardware Systems
074 - Intelligent Systems
079 - Computer Sciences, Other* (see also 437, 476)
081 - Information Sci. & Systems*

PHYSICS & ASTRONOMY

101 - Astronomy
102 - Astrophysics
110 - Atomic & Molecular
120 - Electromagnetism
132 - Acoustics
134 - Fluids
136 - Plasma
138 - Optics
140 - Elementary Particles
150 - Nuclear Structure
157 - Polymer
160 - Solid State
198 - Physics, General
199 - Physics, Other*

CHEMISTRY

200 - Analytical
210 - Inorganic
215 - Synthetic Inorganic & Organometallic
220 - Organic
225 - Synthetic Organic & Natural Products
230 - Nuclear
240 - Physical
250 - Theoretical
256 - Structural
260 - Agricultural & Food
270 - Pharmaceutical
275 - Polymer
280 - Biochemistry (see also 540)
298 - Chemistry, General
299 - Chemistry, Other*

EARTH, ENVIRONMENTAL, AND MARINE SCIENCES

301 - Mineralogy, Petrology
305 - Geochemistry
310 - Stratigraphy, Sedimentation
320 - Paleontology
330 - Structural Geology
341 - Geophysics (Solid Earth)
350 - Geomorph. & Glacial Geology
391 - Applied Geol., Geol. Engr. & Econ. Geol.
398 - Earth Sciences, General
399 - Earth Sciences, Other*
381 - Atmospheric Physics & Chemistry
382 - Atmospheric Dynamics
383 - Atmos. & Meteorol. Sci., Other*
388 - Environmental Sciences, General (see also 480, 528)
389 - Environmental Sciences, Other*
360 - Hydrology & Water Resources
370 - Oceanography
397 - Marine Sciences, Other*

ENGINEERING

400 - Aerospace, Aeronautical & Astronautical
410 - Agricultural
415 - Bioengineering & Biomedical
420 - Civil
430 - Chemical
435 - Ceramic
436 - Communications
437 - Computer
440 - Electrical
445 - Electronics
450 - Industrial & Manufacturing
455 - Nuclear
460 - Engineering Mechanics
465 - Engineering Physics
470 - Mechanical
475 - Metallurgical & Phys. Met. Engr.
476 - Systems Design & Systems Science (see also 072, 073, 074)
478 - Operations Research (see also 082)
479 - Fuel Technology & Petroleum
480 - Sanitary & Environmental Health
485 - Naval Arch. & Marine Engr.
486 - Mining & Mineral
487 - Ocean
490 - Polymer
497 - Materials Science & Engineering
498 - Engineering, General
499 - Engineering, Other*

AGRICULTURAL SCIENCES

501 - Agricultural Economics
508 - Animal Breeding & Genetics
509 - Animal Nutrition
512 - Animal Sciences, Other*
500 - Agronomy
511 - Plant Path. (see also 553)
513 - Plant Breeding & Genetics
514 - Plant Sciences, Other*
503 - Food Science and/or Technology (see also 573)
505 - Forestry
506 - Horticulture
507 - Soil Sciences
515 - Fisheries Sciences
516 - Wildlife Management
518 - Agriculture, General
519 - Agriculture, Other*

MEDICAL SCIENCES

520 - Medicine & Surgery
522 - Public Health & Epidemiology
523 - Veterinary Medicine
524 - Hospital Administration
526 - Nursing
527 - Parasitology
528 - Environmental Health
530 - Audiology & Speech Pathology
534 - Human and Animal Pathology
536 - Pharmacology
537 - Pharmacy
538 - Medical Sciences, General
539 - Medical Sciences, Other*

BIOLOGICAL SCIENCES

540 - Biochemistry (see also 280)
542 - Biophysics
550 - Botany
551 - Bacteriology
552 - Plant Genetics
553 - Plant Path. (see also 511)
557 - Plant Physiology
563 - Human & Animal Genetics
566 - Human & Animal Physiology
589 - Zoology
544 - Biometrics & Biostatistics (see also 055, 670, 725, 727)
545 - Anatomy
546 - Cell Biology
547 - Embryology
548 - Immunology
549 - Endocrinology
560 - Ecology
571 - Entomology
572 - Molecular Biology
573 - Food Science and/or Technology (see also 503)
574 - Behavior/Ethnology
575 - Microbiology
576 - Nutrition & Dietetics
589 - Neurosciences
590 - Toxicology
598 - Biological Sciences, General
599 - Biological Sciences, Other*

PSYCHOLOGY

600 - Clinical
603 - Cognitive
610 - Counseling & Guidance
620 - Developmental & Gerontological
630 - Educational
635 - School
641 - Experimental
642 - Comparative
643 - Physiological
650 - Industrial/Organizational
660 - Personality
670 - Psychometrics (see also 055, 544, 725, 727)
675 - Quantitative
680 - Social
698 - Psychology, General
699 - Psychology, Other*

SOCIAL SCIENCES

700 - Anthropology
703 - Archeology
708 - Communications
709 - Linguistics
710 - Sociology
720 - Economics (see also 501)
725 - Econometrics (see also 055, 544, 670, 727)
727 - Social Statistics (see also 055, 544, 670, 725)
730 - Demography
740 - Geography
745 - Area Studies*
751 - Political Sci. & Government
752 - Public Administration
753 - Public Policy Studies
756 - International Relations
760 - Criminology & Criminal Justice
770 - Urban & Regional Planning
775 - History & Philosophy of Sci.
798 - Social Sciences, General
799 - Social Sciences, Other*

HUMANITIES

804 - History, American
805 - History, European
806 - History, Other*
811 - American Literature
813 - English Language
814 - English Literature
827 - Classics
831 - Speech & Debate
836 - Comparative Literature
839 - Letters, Other*
821 - German
822 - Russian
823 - French
824 - Spanish & Portuguese
826 - Italian
829 - Other Languages*
802 - Art History & Criticism
808 - American Studies
809 - Theatre & Theatre Criticism
830 - Music
833 - Religious Studies (see also 881)
834 - Philosophy (see also 030)
891 - Library & Archival Sciences
878 - Humanities, General
879 - Humanities, Other*

EDUCATION AND PROFESSIONAL FIELDS

801 - Applied Art
881 - Theology (see also 833)
882 - Business & Management
883 - Home Economics
884 - Journalism
886 - Law, Jurisprudence
887 - Social Work
888 - Architec. & Environ. Design
896 - Professional Fields, General
897 - Professional Fields, Other*
938 - Education (other than teaching in a field listed above)

899 - OTHER FIELDS*

*Identify the specific field in the space on the questionnaire.

LIST OF FEDERAL SUPPORTING AGENCIES (For use with # 22)

1. Agency for International Development
2. Environmental Protection Agency
3. National Aeronautics & Space Administration
4. National Endowment for the Arts
5. National Endowment for the Humanities
6. National Science Foundation
7. Nuclear Regulatory Commission
8. Smithsonian Institution
9. Department of Agriculture
10. Department of Commerce
11. Department of Defense
12. Department of Energy
13. National Institutes of Health (DHHS)
14. Alcohol, Drug Abuse & Mental Health Administration (NIAA, NIDA, NIMH)
15. Other DHHS, specify _____
16. Department of Education (NIE, OE, NCES)
17. Department of Housing and Urban Development
18. Department of the Interior
19. Department of Justice
20. Department of Labor
21. Department of State
22. Department of Transportation
23. Other agency or department, specify _____
24. Don't know source agency

Dear Doctorate Recipient:

September 1985

As part of our national sample of doctorate recipients, you were recently asked to provide information for our biennial survey. Your participation is extremely important because your responses represent data not only about yourself, but also about other individuals in your field who are not part of our sample.

The NRC staff is well aware of the constraints placed on your time; and with that in mind, we have designed this abbreviated form. Please take a few minutes to complete it and return it to the National Research Council, JH630, 2101 Constitution Avenue N.W., Washington, D.C. 20418.

Sincerely,
Betty D. Maxfield
Director

1985 SURVEY OF DOCTORATE RECIPIENTS

OMB No. 3145-0020

If your name and address are incorrect, please enter correct information below.

_____

_____

_____

CONDUCTED BY THE NATIONAL RESEARCH COUNCIL WITH THE SUPPORT OF THE NATIONAL SCIENCE FOUNDATION, THE NATIONAL ENDOWMENT FOR THE HUMANITIES, THE NATIONAL INSTITUTES OF HEALTH, AND THE DEPARTMENT OF ENERGY

	Previous Survey Response	Changes as of FEBRUARY 1985
Date of Birth.....		_____
Marital status.....		_____
Institution/Year of Doctorate.		_____
Employment Status.....		_____
Field of employment.....		_____
Type of employer.....		_____
Primary Work Activity.....		_____
Academic Rank.....		_____
Tenure Status.....		_____

Please give the name of your principal employer (company, organization, postdoctoral insitiution, etc., or, if self employed, write "self") and actual place of employment during FEBRUARY 1985.

_____
Name of Employer

_____
City State ZIP Code

What was the basic annual salary associated with your principal professional employment during FEBRUARY 1985? If you were on a postdoctoral appointment, what was you stipend plus allowances?

$_____per year

Check whether salary was for ___9-10 months

___11-12 months

NOTE: This information is solicited under the authority of the National Science Foundation Act of 1950, as amended. All information you provide will be treated as confidential, will be safeguarded in accordance with the provisions of the Privacy Act of 1974, and will be used for statistical purposes only. Information will be released only in the form of statistical summaries or in a form which does not identify information about any particular person. Your response is entirely voluntary, and your failure to provide some or all of the requested information will in no way adversely affect you.

APPENDIX B

SAMPLING FRAME

Sample Selection

Data from the Survey of Doctorate Recipients (SDR) are collected biennially from a stratified random sample of Ph.D. humanists. A longitudinal data base has been constructed from the five surveys conducted since 1977. For each survey, adjustments have been made to both the sampling frame (population) and the sample. These revisions have significant implications when comparing the results of one survey to the results of another.

1977

In 1977, a stratified sample of 15,014 individuals was randomly selected from the population of 74,032 who earned their Ph.D.s in the humanities between January 1, 1930, and June 30, 1976. The overall sampling rate was 20.3 percent (see page 65, Table D-5). The sample was stratified by year of doctorate, field of doctorate, sex, and race/ethnic group.

The sample was selected from the Doctorate Records File (DRF), which contains information about virtually all Ph.D.s awarded by U.S. universities between 1920 and the present. These data are collected from the annual Survey of Earned Doctorates (SED), another survey conducted by the National Research Council.

Individuals who indicated in the SED that they were foreign citizens and planned to depart the United State following receipt of their doctorate were not included in the 1977 sampling frame. This exclusion was based on the high probability that these individuals would not return to the U.S. labor force.

1979

The 1979 sampling frame was adjusted to include only Ph.D. recipients who had earned their degrees between January 1, 1936, and June 30, 1978, a 42-year time span.

In a study of response bias, it was discovered that the survey nonrespondents consisted of higher percentages of foreign citizens and foreign residents. To adjust for this bias, citizenship was added as a stratification variable. The 1979 sample consisted of approximately 9,948 humanities doctorates, an overall sampling rate of 12.6 percent (see page 64, Table D-4).

1981

For the 1981 Survey, the cohort adjustments were again made to maintain a 42-year time span (January 1, 1938, to June 30, 1980). In addition, the overall sampling rate for FY1973-1976 Ph.D.s was increased from 11.8 percent to 15 percent in 1981 because of special interest in studying, in detail, the employment characteristics of recent doctorate recipients.

On a one-time basis, the 1981 sampling frame included individuals who earned their doctoral degrees between July 1980 and February 1981. This 8-month extension was made in response to a study that required data on the most recent Ph.D. recipients. The 1981 sample was 13,676 Ph.D.s, yielding an overall sampling rate of 16.1 percent (see page 63, Table D-3).

1983

For the 1983 survey, a sample of 14,979 Ph.D.s was drawn from a sampling frame of 91,790 doctorate recipients, yielding an overall sampling rate of 16.3 percent (see page 62, Table D-2). In keeping with previous surveys, the cohort population was adjusted to maintain a 42-year time span and included only those Ph.D. recipients who earned their degrees between January 1, 1940, and June 30, 1982. Religious studies

doctorates were added to the 1983 sampling frame, and a stratified random sample of these cases was added to the survey sample.

1985

For the 1985 survey, the 1983 and 1984 Ph.D. humanists were added to the sampling frame and the 1940 and 1941 Ph.D.s were deleted, leaving the 42-year time-span coverage. Maintaining the longitudinal sample, additional Ph.D.s were selected from the new cohort, leaving a 16.2 percent sample, or 15,504 Ph.D.s, from the population sampling frame of 95,787 humanities doctorates (see page 61, Table D-1).

Sampling Rates

For the 1977 survey, the sampling rate was approximately 20 percent. In 1979, the longitudinal sample was reduced in size because of budgetary constraints. The revised sample, using a rate of 12.6 percent, was reviewed to assure that it was large enough to provide reliable estimates of the Ph.D. population.

Effect on Sampling Errors

Obviously, any change in the sample size has an effect on the sampling errors of population estimates. If the proportion of the population possessing a particular characteristic, $\underline{P}$, is being estimated by the statistic p, the standard error of p can be computed by

$$S.E.(p) = [VAR(\underline{P})/n]^{1/2}$$

where VAR($\underline{P}$) is estimated by [p(1-p)], p equals the sample proportion, and n equals the sample size.

This formula is equivalent to

$$S.E.(p) = [VAR(\underline{P})/n]^{1/2} \text{ or } [VAR(\underline{P})]^{1/2}/(n)^{1/2} = [S.D.(\underline{P})]/(n)^{1/2},$$

where S.D.($\underline{P}$) is the standard deviation of $\underline{P}$. Holding S.D.($\underline{P}$) fixed, the sampling error, S.E.(p), will vary as n is adjusted by a factor k:

$$S.E.(p) = [S.D.(\underline{P}]/(kn)^{1/2} \text{ or } S.E.(p) = [S.D.(\underline{P})]/(k)^{1/2} \cdot (n)^{1/2}.$$

If the sample size is increased to $\vec{n}$, then $k = (\vec{n}/n) > 1$. In this case the sampling error is reduced by a factor of $1/(k)^{1/2}$. For example, if the sample p equals 0.2, the estimated

$$S.D.(\underline{P}) = [0.2(1 - 0.2)]^{1/2} = 0.4.$$

If n is 100, then

$$S.E.(p) = [0.4/(100)^{1/2}] = 0.04.$$

If n is increased to 1600,

$$S.E.(p) = [0.4/(1600)^{1/2}] = 0.01.$$

Here k = 16 and the sampling error is $1/(k)^{1/2}$ of its original value.

However, if the sample size is decreased to $\tilde{n}$, then $k = (\tilde{n}/n) < 1$. In this case, the sampling error is increased by a factor of $1/(k)^{1/2}$. In the previous example, if the *initial* sample size equalled 1600, $k = (100/1600) = 1/16$. The sampling error increased from 0.01 to 0.04, a factor of 4.

For the 1985 SDR, the sampling frame is 95,787, and the sample is 15,504. If the earlier 20 percent sampling rate had been applied, the 1985 sample would have been 19,157. The expected effect of the sample size reduction on the sampling errors surrounding the *estimates of the total population* can be approximated by computing

$$k = (15,504/19,157) = .809 \text{ and } 1/(k)^{1/2} = 1.11.$$

Thus, for a fixed standard deviation, the sampling error should be approximately 11 percent greater under the 1985 sampling scheme.

In these computations, the effects of the finite population correction factor (fpc) have been ignored. The fpc has little effect on sampling error estimates for large populations and low sampling rates. However, although the overall sampling rate for the 1985 SDR sample is 16.2 percent, sampling rates for the strata range from roughly 2 percent to 100 percent. Thus, computation of sampling errors that takes into account sample stratification will result in lower sampling error estimates than computations that disregard the sample design.

Finally, this discussion applies only to the total sample n and does not address the issue of less than complete survey response, which will of course effectively reduce the sample and thus increase the sampling error.

APPENDIX C

SAMPLING ERROR

Sampling Error Estimates for Ratios

Most of the statistics presented in this report are ratios of two weighted sums of observation, i.e., ratios of random variables. Thus, for example, we are concerned with a ratio, r = y/x, where

$$y = \sum_{h=1}^{n} \left[\frac{N_h}{n_h}\right] \sum_{i=1}^{n} y_{hi}$$

$$x = \sum_{h=1}^{n} \left[\frac{N_h}{n_h}\right] \sum_{i=1}^{n} x_{hi}$$

and where y_{hi} and x_{hi} are observations made on the i^{th} response of stratum h, N_h is the number of individuals in the active population of stratum h, and n_h is the number of responses for stratum h.

The estimates of sampling error for most statistics in this report are computed based on a stratified random sampling scheme (whereby the responses obtained for each stratum are a random sample from that stratum). Strata were combined whenever the number of responses in a stratum was less than two.

The variance of the ratio y/x is estimated by the expression

$$s_r^2 = \left(\frac{y}{x}\right)^2 \left(\frac{s_y^2}{y^2} + \frac{s_x^2}{x^2} - \frac{2s_{xy}}{xy}\right)$$

where

$$s_{xy} = \sum_{h=1}^{n} \frac{N_h^2}{n_h} \frac{N_h - n_h}{N_h - 1} \frac{1}{n_h - 1} \left(\sum_{i=1}^{n} [x_{hi} - \bar{x}_h][y_{hi} - \bar{y}_h]\right),$$

x_h and y_h being the means of the x and y values observed in stratum h, respectively. Similarly, s_x^2 and s_y^2 are defined using

$$\sum_{i=1}^{n} [x_{hi} - \bar{x}_h]^2 \text{ and } \sum_{i=1}^{n} [y_{hi} - \bar{y}_h]^2 .$$

(These are combined in parentheses in the s_{xy} formula above.)

Comparisons can be made between sampling errors computed on the basis of a simple random sample (srs) and those that take into account stratification. Table C-1 presents sampling errors associated with selected statistics from the report. Bases of various sample sizes and a range of statistic values have been chosen to provide representative comparisons. Sampling errors in the column s_p were computed with the expression [p(1-p)/n] where "n" refers to the number of respondents, while those under s_r were calculated with the formula described on the previous page, which takes into account the sample design. The statistics are in percentage form and are the estimated proportion of a variable category with a given characteristic

$$\frac{1}{n} \sum_{i=1}^{n} y_i$$

(for the purposes of s_p), or the ratio of two random variables, y/x (for the purposes of s_r).

TABLE C-1 Comparison of Sampling Errors for Selected Statistics

Variable Base and Subcategory	Sample Size of Variable Base	Statistic (%)	s_p (%) (srs)	s_r (%) Stratified
Field of Ph.D.--Total	8,804			
Eng/Amer Lang. & Lit. Ph.D. (Table 1)		26.3	0.5	0.2
Field of Employment--Total Employed	7,949			
Employed in Music (Table 2)		6.5	0.3	0.1
Speech/Theater Ph.D.--Total Employed	456			
Employed in Eng/Amer Lang. & Lit. (Table 2)		5.2	1.0	1.1
Philosophy Ph.D.--Total	881			
Female (Table 3)		15.4	1.2	0.4
Modern Language Ph.D.--Total	2,116			
Employed Full-Time (Table 4)		81.7	0.8	1.0
Art History Ph.D.--Total Full-Time or Part-Time Employed	507			
Employed in 4-Yr. College/Univ. (Table 9)		77.1	1.9	1.8
Speech/Theater Ph.D.--FY79-84 Graduates Full-Time or Part-Time Employed	119			
Employed in Management/Administration (Table 12)		13.2	3.1	3.3
Total Males--Academically Employed	3,165			
Hold Rank of Professor (Table 16)		45.3	0.9	1.1

Whenever possible, the subgroups examined are the same as those in the *1977 Profile** in order to facilitate comparisons of the effects on sampling errors of sample size reductions.

For the most part, differences between the two error estimates are small. Calculations based on srs are, for many statistics, the same as or slightly higher than those that take into account the stratification. For statistics that are ratios of two stratifying variables (e.g., the ratio of women philosophy Ph.D.s to total philosophy Ph.D.s), the estimate of sampling error is much higher using the formula for s_p. In certain cases (mainly those involving estimates of type of employer or primary work activity for small subgroups), the use of the formula for s_p appears to underestimate the sampling error.

Taking these potential discrepancies into account, a useful approximation of the sampling errors of those statistics presented in this report in percentage form can be

Science, Engineering, and Humanities Doctorate in the United States: 1977 Profile , Washington, D.C.: National Academy of Sciences, 1978.

obtained from Table C-2. This table summarizes sampling errors associated with various proportion values at given sample sizes. Calculations in this table assume a simple random sample.

Values for Table C-2 were computed using the formula

$$s_p = \left[\frac{p(1-p)}{n}\right]^{1/2}$$

in which p is the proportion of a particular category (variable) possessing a certain characteristic,

$$y \left(\text{i.e., } p = \frac{1}{n}\sum_{i}^{n} y_i \right),$$

and n is the number of sample cases in the variable-specified category. The finite population correction factor,

$$\text{fpc} = \left(\frac{[n-n]}{[N-1]}\right)^{1/2},$$

has been omitted from the calculations, since the fpc has a negligible effect on most statistics in this report unless the estimate applies to a subgroup that has a high sampling rate. In any case, the omission of the fpc in the formula for s_p yields a conservative estimate (i.e., a higher estimate) of the sampling error.

TABLE C-2 Approximate Sampling Errors for Various Statistics and Sample Sizes

Sample Size	Proportion 0.01 or 0.99	0.05 or 0.95	0.10 or 0.90	0.25 or 0.75	0.50
37,500	0.00051	0.00113	0.00155	0.00224	0.00258
12,100	0.00090	0.00198	0.00273	0.00394	0.00455
10,300	0.00098	0.00215	0.00296	0.00427	0.00493
9,000	0.00105	0.00230	0.00316	0.00456	0.00527
4,300	0.00152	0.00332	0.00457	0.00660	0.00762
2,000	0.00222	0.00487	0.00671	0.00968	0.01118
1,200	0.00287	0.00629	0.00866	0.01250	0.01443
800	0.00352	0.00771	0.01061	0.01531	0.01768
400	0.00497	0.01090	0.01500	0.02165	0.02500
200	0.00704	0.01541	0.02121	0.03062	0.03536
100	0.00995	0.02179	0.03000	0.04330	0.05000

The estimated populations for particular variables are provided in this report. The sample sizes can be estimated by multiplying the population by the weighting fraction, which is the sampling fraction corrected for nonresponse. The mean weighting fractions for selected groups are presented in Table C-3. For example, in Table 9 the population of speech/theater Ph.D.s is 3,400. Multiplying by 0.134, the approximate sample size is 455. The sampling error of a reported statistic (for instance, those employed in 4-year colleges

or universities, 75.6 percent--type of employer, Table 9) can be estimated either by using the formula for s_p or by consulting Table C-2 and using rough approximations of the sample size and percentage in proportion form. In this case,

$$s_p = \frac{0.756(1 - 0.756)}{455}^{1/2} = 0.0201, \text{ or } 2.0 \text{ percent}.$$

Similarly, the value in the table opposite 400 for 0.75 is 0.02165. The reader can construct the desired confidence interval by multiplying the standard error by the appropriate coefficient: $\pm 1\, s_p$ will provide a 68 percent confidence interval; $\pm 2\, s_p$, approximately a 95 percent interval, etc.

Table C-3 Mean Weighting Fractions for Selected Groups in the Humanities

TOTAL IN U.S.	0.097
Men	0.067
Women	0.168
Minority	0.208
Field	
American History	0.054
Art History	0.221
"Other History"	0.057
Music	0.117
Speech/Theater	0.136
Philosophy	0.126
English/American Languages & Literature	0.059
Classical Languages & Literature	0.241
Modern Languages & Literature	0.133
"Other Humanities"	0.117

Sampling Error Estimates for Medians

Sampling errors for median salary estimates* presented in this report were computed not by strata but for all observations n, the number of sample cases in a particular subgroup reporting a salary. Comparisons of sampling errors for ratios and proportions (see previous page) indicate only minor differences between those calculated by strata and those that do not fully take into account sample design. The reader should interpret the confidence intervals as close approximations.

From the estimated population distribution, a statistic, m, is computed as an estimator of M, the position measure. When m is a median (p_m), the proportion of cases in

*The method for determining sampling errors of medians in this report was adapted from Morris H. Hansen, William N. Hurwitz, and William G. Madow, *Sample Survey Methods and Theory*, vol. I (John Wiley & Sons, Inc., New York, 1953), pp. 448-449.

the derived distribution falling below the position measure equals 0.5. The sampling error of p_m is estimated by the formula

$$s_{p_m} = \left(\frac{p_m[1 - p_m]}{n}\right)^{1/2}.$$

Two additional proportions are then computed:

$$p_1 = p_m - ks_{pm}$$

$$p_2 = p_m + ks_{pm}.$$

Table C-4 contains the 95 percent confidence intervals of median salary for selected categories. The confidence interval for the median is set by calcuating m_1 and m_2, the values below which p_1 and p_2 of the population distribution fall. The level of confidence is determined by k and will be 68 percent when k = 1, approximately 95 percent when k = 2, etc. Because the values of m_1 and m_2 depend on the variability of the distribution, the

TABLE C-4 95 Percent Confidence Intervals of Median Salaries for Selected Categories (in thousands of dollars)

Category	Confidence Intervals	(Reported Statistics)
Total, Full-Time Employed Ph.D.s	34.4-34.9	(34.6)
Gender		
Men	35.4-36.2	(35.8)
Women	30.3-31.2	(30.7)
Employer		
Educational Institutions	34.7-35.1	(34.9)
Business/Industry	30.4-32.9	(30.8)
Federal Government (excluding military)	32.3-34.9	(33.5)
Field		
American History	36.3-38.6	(37.3)
Art History	31.4-34.7	(33.3)
"Other History"	35.6-37.1	(36.4)
Music	31.1-33.8	(32.4)
Speech	34.6-36.4	(35.6)
Philosophy	35.1-36.8	(36.1)
English/American Languages & Literature	33.3-34.7	(34.1)
Classical Languages & Literature	31.0-34.1	(32.6)
Modern Languages & Literature	32.6-34.3	(33.6)
"Other Humanities"	30.6-33.0	(31.5)

reader is cautioned that corresponding values for 2 standard errors are not necessarily twice those for 1 standard error.

For example, in Table 14 an estimated median annual salary of $36,100 is reported for Ph.D. philosophers. This was computed on the basis of 723 sample observations. Therefore,

$$s_p = \frac{0.5(1-0.5)}{723}^{1/2} = 0.0186.$$

To construct a 95 percent confidence interval, compute

$$p = 0.5 - 2[0.0186] = 0.4628 \text{ and } p = 0.5 + 2[0.0186] = 0.5372,$$

which round to .046 and .054. The values m_1 = $35,100 (the value at the 46th percentile) and m_2 = $36,800 (the value at the 54th percentile) are then determined and provide the bounds of this interval.

APPENDIX D

RESPONSE RATES

TABLE D-1 Response Rates for the 1985 Survey of Doctorate Recipients in the Humanities

1985	Sampling Frame[a] (N)	Sample (n)	Survey Sample[b] (n)	Contacted[c] (n)	Survey Responses[d] (n)	Response Rates[e] A (%)	Response Rates[e] B (%)
Total	95787	15504	14917	13560	9047	60.6	66.7
Field of Doctorate/Employment							
History	22537	1903	1833	1667	1166	63.6	69.9
Art History	2620	960	924	858	576	62.3	67.1
Music	6537	1055	1012	946	674	66.6	71.2
Speech	4970	936	827	762	515	62.3	67.6
Philosophy	7174	1467	1415	1289	844	59.6	65.5
English/American Literature	25420	2360	2281	2057	1380	60.5	67.1
Classical Language/Literature	2075	782	743	686	473	63.7	69.0
Modern Language/Literature	14359	3096	3002	2721	1782	59.4	65.5
Religious Studies	1731	458	456	413	312	68.4	75.5
Other Humanities	4065	964	941	858	585	62.2	68.2
Languages[f]	821	339	334	288	164	49.1	56.9
Other Humanities[f]	1686	834	807	717	426	52.8	59.4
All Humanities Fields[f]	1792	350	342	298	150	43.9	50.3
Year of Doctorate							
CY1942-CY1957	12856	1581	1253	1147	760	60.7	66.3
CY1958-FY1969	23422	2638	2482	2306	1526	61.5	66.2
FY1970-FY1976	31245	6822	6739	6126	3973	59.0	64.9
FY1977-FY1982	21968	3361	3341	3033	2071	62.0	68.3
FY1983-FY1984	6291	1097	1097	943	715	65.2	75.8
Merged Cohorts[g]	5	5	5	5	2	40.0	40.0
Sex							
Male	68390	7852	7554	6875	4518	59.8	65.7
Female	27397	7652	7363	6685	4529	61.5	67.7
Race/Ethnic Group							
White/Unknown	91915	13305	12766	11651	7886	61.8	67.7
Minority Group[h]	3872	2199	2151	1909	1161	54.0	60.8
Citizenship							
U.S.	78317	12603	12357	11292	7705	62.4	68.2
Foreign	4614	1320	1307	1121	582	44.5	51.9
Unknown	12856	1581	1253	1147	760	60.7	66.3

[a] The sampling frame includes those deceased and those residing in foreign countries; hence, these numbers exceed the population estimates shown in the other tables of this report.

[b] The survey sample is the sample size minus persons known to be deceased or out-of-scope prior to the survey. The out-of-scope classification is assigned to an individual who indicated on a previous survey that he or she holds a Ph.D. from a foreign institution, is a foreign citizen, and resides in a foreign country.

[c] The number assumed contacted equals the survey sample minus those individuals for whom no valid addresses could be obtained.

[d] Responses include individuals found to be deceased or residing in a foreign country at the time the recent survey was conducted.

[e] Response rate "A" is the number of survey responses divided by the number in the survey sample. Response rate "B" is the number of survey responses divided by the number assumed to have been contacted.

[f] Merged fields created for certain small subgroups when sample was reduced

[g] Merged cohorts created for certain small subgroups when sample was reduced.

[h] Include only those individuals whose racial/ethnic group was known at the time the sample was selected.

TABLE D-2 Response Rates for the 1983 Survey of Doctorate Recipients in the Humanities

1983	Sampling Frame[a] (N)	Sample (n)	Survey Sample[b] (n)	Contacted[c] (n)	Survey Responses[d] (n)	Response Rates[e] A (%)	Response Rates[e] B (%)
Total	91790	14979	14405	12925	9266	64.3	71.7
Field of Doctorate/Employment							
History	21752	1825	1760	1605	1189	67.6	74.1
Art History	2419	911	872	809	600	68.8	74.2
Music	5798	962	921	851	661	71.8	77.7
Speech	4952	919	817	752	523	64.0	69.5
Philosophy	6875	1428	1385	1224	854	61.7	69.8
English/American Literature	24463	2285	2209	1993	1410	63.8	70.7
Classical Language/Literature	2067	762	727	659	496	68.2	75.3
Modern Language/Literature	13786	2894	2804	2523	1784	63.6	70.7
Religious Studies	1439	409	409	299	216	52.8	72.2
Other Humanities	4214	1149	1106	991	765	69.2	77.2
Languages[f]	686	285	280	241	154	55.0	63.9
Other Humanities[f]	1533	792	764	677	432	56.5	63.8
All Humanities Fields[f]	1806	358	351	301	182	51.9	60.5
Year of Doctorate							
CY1940-CY1957	14227	1811	1447	1331	941	65.0	70.7
CY1958-FY1969	23587	2760	2622	2449	1735	66.2	70.8
FY1970-FY1976	31681	6968	6903	6144	4325	62.7	70.4
FY1977-FY1980	15575	2365	2359	2082	1548	65.6	74.4
FY1981-FY1982	6715	1070	1069	915	715	66.9	78.1
Merged Cohorts[g]	5	5	5	4	2	40.0	50.0
Sex							
Male	66496	7686	7392	6608	4653	62.9	70.4
Female	25294	7293	7013	6317	4613	65.8	73.0
Race/Ethnic Group							
White/Unknown	88404	13009	12479	11232	8142	65.2	72.5
Minority Group[h]	3386	1970	1926	1693	1124	58.4	66.4
Citizenship							
U.S.	73343	11977	11779	10611	7741	65.7	73.0
Foreign	4220	1191	1179	983	584	49.5	59.4
Unknown	14227	1811	1447	1331	941	65.0	70.7

[a] The sampling frame includes those deceased and those residing in foreign countries; hence, these numbers exceed the population estimates given in other SDR reports.

[b] The survey sample is the sample size minus persons known to be deceased or out-of-scope prior to the survey. The out-of-scope classification is assigned to an individual who indicated on a previous survey that he or she holds a Ph.D. from a foreign institution, is a foreign citizen, and resides in a foreign country.

[c] The number assumed contacted equals the survey sample minus those individuals for whom no valid addresses could obtained.

[d] Responses include individuals found to be deceased or residing in a foreign country at the time the recent survey was conducted.

[e] Response rate "A" is the number of survey responses divided by the number in the survey sample. Response rate "B" is the number of survey responses divided by the number assumed to have been contacted.

[f] Merged fields created for certain small subgroups when sample was reduced.

[g] Merged cohorts created for certain small subgroups when sample was reduced.

[h] Include only those individuals whose racial/ethnic group was known at the time the sample was selected.

TABLE D-3 Response Rates for the 1981 Survey of Doctorate Recipients in the Humanities

1981	Sampling Frame[a] (N)	Sample (n)	Survey Sample[b] (n)	Contacted[c] (n)	Survey Responses[d] (n)	Response Rates[e] A (%)	Response Rates[e] B (%)
Total	85037	13676	13121	11738	7850	59.8	66.9
Field of Doctorate/Employment							
History	20790	1746	1682	1489	1040	61.8	69.8
Art History	2163	840	802	731	497	62.0	68.0
Music	5125	877	839	776	574	68.4	74.0
Speech	4920	902	795	725	500	62.9	69.0
Philosophy	6519	1393	1353	1160	737	54.5	63.5
English/American Literature	23259	2201	2127	1844	1232	57.9	66.8
Classical Language/Literature	2036	732	697	646	447	64.1	69.2
Modern Language/Literature	13093	2694	2611	2367	1527	58.5	64.5
Other Humanities	3496	1036	994	910	669	67.3	73.5
Languages[f]	563	236	231	198	114	49.4	57.6
Other Humanities[f]	1269	661	639	578	340	53.2	58.8
All Humanities Fields[f]	1804	358	351	314	173	49.3	55.1
Year of Doctorate							
CY1938-CY1957	15411	1950	1571	1442	978	62.3	67.8
CY1958-FY1965	12076	1456	1364	1292	877	64.3	67.9
FY1966-FY1969	11485	1304	1264	1177	783	61.9	66.5
FY1970-FY1974	22019	4037	4006	3538	2316	57.8	65.5
FY1975-FY1978	16914	3837	3824	3334	2192	57.3	65.7
FY1979-FY1980	7112	1087	1087	950	702	64.6	73.9
Merged Cohorts[g]	20	5	5	5	2	40.0	40.0
Sex							
Male	62518	7022	6744	6067	3974	58.9	65.5
Female	22519	6654	6377	5671	3876	60.8	68.3
Race/Ethnic Group							
White/Unknown	82243	12055	11529	10305	7001	60.7	67.9
Minority Group[h]	2794	1621	1592	1433	849	53.3	59.2
Citizenship							
U.S.	65907	10699	10534	9417	6414	60.9	68.1
Foreign	3719	1027	1016	879	458	45.1	52.1
Unknown	15411	1950	1571	1442	978	62.3	67.8

[a] The sampling frame includes those deceased and those residing in foreign countries; hence, these numbers exceed the population estimates shown in the other tables of this report.

[b] The survey sample is the sample size minus persons known to be deceased or out-of-scope prior to the survey. The out-of-scope classification is assigned to an individual who indicated on a previous survey that he or she holds a Ph.D. from a foreign institution, is a foreign citizen, and resides in a foreign country.

[c] The number assumed contacted equals the survey sample minus those individuals for whom no valid addresses could be obtained.

[d] Responses include individuals found to be deceased or residing in a foreign country at the time the recent survey was conducted.

[e] Response rate "A" is the number of survey responses divided by the number in the survey sample. Response rate "B" is the number of survey responses divided by the number assumed to have been contacted.

[f] Merged fields created for certain small subgroups when sample was reduced

[g] Merged cohorts created for certain small subgroups when sample was reduced.

[h] Include only those individuals whose racial/ethnic group was known at the time the sample was selected.

TABLE D-4 Response Rates for the 1979 Survey of Doctorate Recipients in the Humanities

1979	Sampling Frame[a] (N)	Sample (n)	Survey Sample[b] (n)	Contacted[c] (n)	Survey Responses[d] (n)	Response Rates[e] A (%)	Response Rates[e] B (%)
Total	79037	9948	9542	8809	6512	68.2	73.9
Field of Doctorate/Employment							
History	19627	1141	1088	1023	763	70.1	74.6
Art History	1893	666	643	603	470	73.1	77.9
Music	4395	686	660	618	496	75.2	80.3
Speech	4857	786	749	699	533	71.2	76.3
Philosophy	6158	804	774	708	492	63.6	69.5
English/American Literature	21782	1227	1158	1084	786	67.9	72.5
Classical Language/Literature	2036	635	602	561	402	66.8	71.7
Modern Language/Literature	12268	2156	2080	1892	1393	67.0	73.6
Other Humanities	2805	801	764	711	566	74.1	79.6
Languages[f]	453	194	190	170	103	54.2	60.6
Other Humanities[f]	959	494	480	434	308	64.2	71.0
All Humanities Fields[f]	1804	358	354	306	200	56.5	65.4
Year of Doctorate							
CY1936-CY1957	16515	2073	1743	1582	1192	68.4	75.3
CY1958-FY1965	12091	1456	1410	1320	974	69.1	73.8
FY1966-FY1969	11485	1304	1287	1188	858	66.7	72.2
FY1970-FY1974	22019	2659	2647	2444	1770	66.9	72.4
FY1975-FY1976	9003	1252	1251	1165	854	68.3	73.3
FY1977-FY1978	7919	1199	1199	1105	863	72.0	78.1
Merged Cohorts[g]	5	5	5	5	1	20.0	20.0
Sex							
Male	59146	5208	5009	4658	3394	67.8	72.9
Female	19891	4740	4533	4151	3118	68.8	75.1
Race/Ethnic Group							
White/Unknown	77004	8863	8478	7842	5864	69.2	74.8
Minority Group[h]	2033	1085	1064	967	648	60.9	67.0
Citizenship							
U.S.	59177	7083	7012	6543	4890	69.7	74.7
Foreign	3345	792	787	684	430	54.6	62.9
Unknown	16515	2073	1743	1582	1192	68.4	75.3

[a] The sampling frame includes those deceased and those residing in foreign countries; hence, these numbers exceed the population estimates shown in the other tables of this report.

[b] The survey sample is the sample size minus persons known to be deceased or out-of-scope prior to the survey. The out-of-scope classification is assigned to an individual who indicated on a previous survey that he or she holds a Ph.D. from a foreign institution, is a foreign citizen, and resides in a foreign country.

[c] The number assumed contacted equals the survey sample minus those individuals for whom no valid addresses could be obtained.

[d] Responses include individuals found to be deceased or residing in a foreign country at the time the recent survey was conducted.

[e] Response rate "A" is the number of survey responses divided by the number in the survey sample. Response rate "B" is the number of survey responses divided by the number assumed to have been contacted.

[f] Merged fields created for certain small subgroups when sample was reduced

[g] Merged cohorts created for certain small subgroups when sample was reduced.

[h] Include only those individuals whose racial/ethnic group was known at the time the sample was selected.

TABLE D-5 Response Rates for the 1977 Survey of Doctorate Recipients in the Humanities

1977	Sampling Frame[a] (N)	Sample (n)	Survey Sample[b] (n)	Contacted[c] (n)	Survey Responses[d] (n)	Response Rates[e] A (%)	Response Rates[e] B (%)
Total	74032	15014	14267	13211	9455	66.3	71.6
Field of Doctorate/Employment							
History	19109	2705	2541	2380	1746	68.7	73.4
Art History	1722	643	616	575	430	69.8	74.8
Music	3910	929	890	835	621	69.8	74.4
Speech	4913	1038	991	926	653	65.9	70.5
Philosophy	6214	1186	1131	1030	681	60.2	66.1
English/American Literature	20891	2859	2730	2548	1830	67.0	71.8
Classical Language/Literature	2282	706	661	612	448	67.8	73.2
Modern Language/Literature	12499	3763	3578	3248	2245	62.7	69.1
Other Humanities	2492	1185	1129	1057	801	70.9	75.8
Year of Doctorate							
CY1930-CY1949	10332	2388	1839	1605	1157	62.9	72.1
CY1950-FY1961	14001	2604	2460	2309	1648	67.0	71.4
FY1962-FY1969	18664	3451	3407	3210	2347	68.9	73.1
FY1970-FY1974	22016	4282	4273	3923	2715	63.5	69.2
FY1975-FY1976	9019	2289	2288	2164	1588	69.4	73.4
Sex							
Male	56463	9878	9380	8788	6202	66.1	70.6
Female	17569	5136	4887	4423	3253	66.6	73.5
Race/Ethnic Group							
White/Unknown	72627	13610	12890	11943	8659	67.2	72.5
Minority Grouph	1405	1404	1377	1268	796	57.8	62.8

[a] The sampling frame includes those deceased and those residing in foreign countries; hence, these numbers exceed the population estimates shown in the other tables of this report.

[b] The survey sample is the sample size minus persons known to be deceased or out-of-scope prior to the survey. The out-of-scope classification is assigned to an individual who indicated on a previous survey that he or she holds a Ph.D. from a foreign institution, is a foreign citizen, and resides in a foreign country.

[c] The number assumed contacted equals the survey sample minus those individuals for whom no valid addresses could be obtained.

[d] Responses include individuals found to be deceased or residing in a foreign country at the time the recent survey was conducted.

[e] Response rate "A" is the number of survey responses divided by the number in the survey sample. Response rate "B" is the number of survey responses divided by the number assumed to have been contacted.

[f] Merged fields created for certain small subgroups when sample was reduced

[g] Merged cohorts created for certain small subgroups when sample was reduced.

[h] Include only those individuals whose racial/ethnic group was known at the time the sample was selected.

APPENDIX E

WEIGHTING PROCEDURE

Estimates in this report are based on weighted responses. The 587 individuals (in the total sample of 15,504) who were known to be deceased or out-of-scope prior to the survey were excluded and weighted for sample weights. The responses (9,047) received from the survey sample were assigned a response weight that is the product of the weight for nonresponse and the sample weight. Table E-1 shows the classification of the sample and the formulas used for calculating the weights.

Table E-1 Classification of Sample and Weighting for 1985 Survey of Doctorate Recipients

Group		Number in Sample	Type of Estimation Weight*
TOTAL SAMPLE		15,504	
EXCLUDED FROM SURVEY			
Known Deceased Prior to 1985 Survey**	537		Sample
Out-of-Scope***	50		Sample
		- 587	
SURVEY SAMPLE		14,917	
No Valid Address		- 1,357	
CONTACTED SAMPLE		13,560	
RESPONSES			
Good Responses		9,003	Response
Known Deceased [from feedback to the 1985 Survey (code 4)]		44	Response
TOTAL		9,047	

*The sample weights (Ws) and response weights (Wr) for each stratum were computed as follows:

$$Ws_h = \frac{N_h}{n_h}$$

where N_h and n_h are the respective population and sample sizes of the stratum (h) and

$$Wr_h = \frac{N_h}{n_h} \cdot \frac{n_h}{r_h}$$

where n_h is the number of survey sample cases in the stratum and r_h is the number of survey responses in that stratum.

**Based on information obtained from the 1977-1983 survey responses or through address searches.

***Based on responses that indicated individuals held Ph.D.s from foreign institutions, were foreign citizens, and resided in foreign countries.

Each stratum with fewer than two responses was merged with a similarly defined stratum in order to calculate sampling errors. Respondents in each stratum were assigned a weight equal to the integral part of the stratum's response weight, or the integral part plus one. Allocation of weights within a stratum was made at random so as to represent the stratum population. This technique avoids the necessity of rounding fractional estimates of totals.

For example, consider a stratum that contains 60 individuals, of whom 15 were selected for the sample. One of the 15 is known to be deceased prior to the survey. This individual receives a sample weight, 60/15, or 4.0, and thus represents 4 individuals in the population. The number of survey sample cases in the stratum is 14. Of these 14 individuals, 10 responded. The average weight for the respondents in this stratum would be [60/15] • [14/10] = 5.6. To obtain integer weights, 4 of the respondents (chosen at random) would each receive a weight of 5, thus representing 20 individuals in the population. The 6 remaining respondents would each receive a weight of 6, thus representing 36. Combined, the 10 respondents would represent 56 individuals in the stratum, who together with the 4 individuals estimated to be deceased represent the entire 60 individuals in the stratum.

APPENDIX F

FINE FIELD OF EMPLOYMENT

TABLE F-1 Ph.D.s in the Humanities in the United States, 1985

1985 Fine Field of Employment	Est. N
Total Population	81,918
Mathematics Total	239
Algebra	25
Analysis & Func Analysis	2
Geometry	13
Logic	173
Operations Research	8
Applied Mathematics	5
Mathematics, General	13
Computer Sciences Total	1,308
Theory	7
Software Systems	538
Hardware Systems	6
Intelligent Systems	116
Computer Sciences, Other	368
Information Sci. & Systems	273
Physics/Astronomy Total	25
Physics, General	9
Physics, Other	16
Chemistry Total	7
Synth Organ & Natural Products	7
Earth, Envir, & Mar Sci Total	69
Geophysics (Solid Earth)	5
Earth Sciences, Other	20
Atmospheric Dynamics	4
Atmos./Meterol. Sci., Other	7
Environmental Sci., Gen	8
Marine Sciences, Other	25
Engineering Total	200
Aero- & Astronautical	8
Civil Engineering	11
Communications Engineering	34
Computer Engineering	24
Electrical Engineering	4
Electronics Engineering	17
Industrial/Manufacturing	34
Systems Design & Sys. Sci.	64
Engineering, Other	4
Agricultural Sciences Total	78
Animal Sciences, Other	12
Food Sciences	26
Forestry	7
Horticulture	2
Agricultural Sci., Gen	5
Agricultural Sci., Oth	26
Medical Sciences Total	374
Medicine & Surgery	55
Publ Hlth & Epidemiology	58
Veterinary Medicine	3
Hospital Administration	91
Nursing	29
Environmental Health	2
Speech Pathology & Audiology	38
Medical Sciences, General	28
Medical Sciences, Other	70
Biological Sciences Total	52
Ecology	2
Zoology	5
Molecular Biology	7
Neurosciences	38

1985 Fine Field of Employment	Est. N
Psychology Total	515
Clinical Psychology	201
Counseling & Guidance	138
Developmental & Gerontol.	25
Educational Psychology	17
School Psychology	26
Psychometrics	35
Psychology, General	22
Psychology, Other	51
Social Sciences Total	2,791
Anthropology	129
Communications	473
Sociology	92
Economics	94
Demography	9
Geography	48
Area Studies	356
Political Science	334
Public Administration	310
Public Policy Studies	80
International Relations	305
Criminology & Crim. Justice	78
Urban & Regional Planning	59
Social Sciences, General	167
Social Sciences, Other	257
Arts/Human/Lang/Lit Total	62,387
American History	6,510
European History	3,514
History & Phil. of Science	398
History, Other	3,572
American Literature	3,964
English Language	3,415
English Literature	8,386
Classics	1,207
German	1,979
Russian	755
French	3,038
Spanish & Portuguese	3,281
Italian	348
Other Languages	769
Comparative Literature	839
Linguistics	926
History & Criticism of Art	2,259
Archeology	365
American Studies	527
Music	5,307
Theater & Theater Criticism	1,692
Speech Dramatic Art/Debate	607
Religious Studies	1,570
Philosophy	4,314
Letters, Other	936
Humanities, General	1,070
Humanities, Other	839
Educational, Professional, & Other Fields, Total	12,392
Education	4,408
Applied Art	44
Theology	853
Business & Management	2,194
Home Economics	9
Journalism	554
Law, Jurisprudence	887
Social Work	116
Architec. & Environ. Design	55
Library & Archival Sciences	895
Prof. Fields, General	101
Prof. Fields, Other	666
Other Fields	1,610
No Report	1,481

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